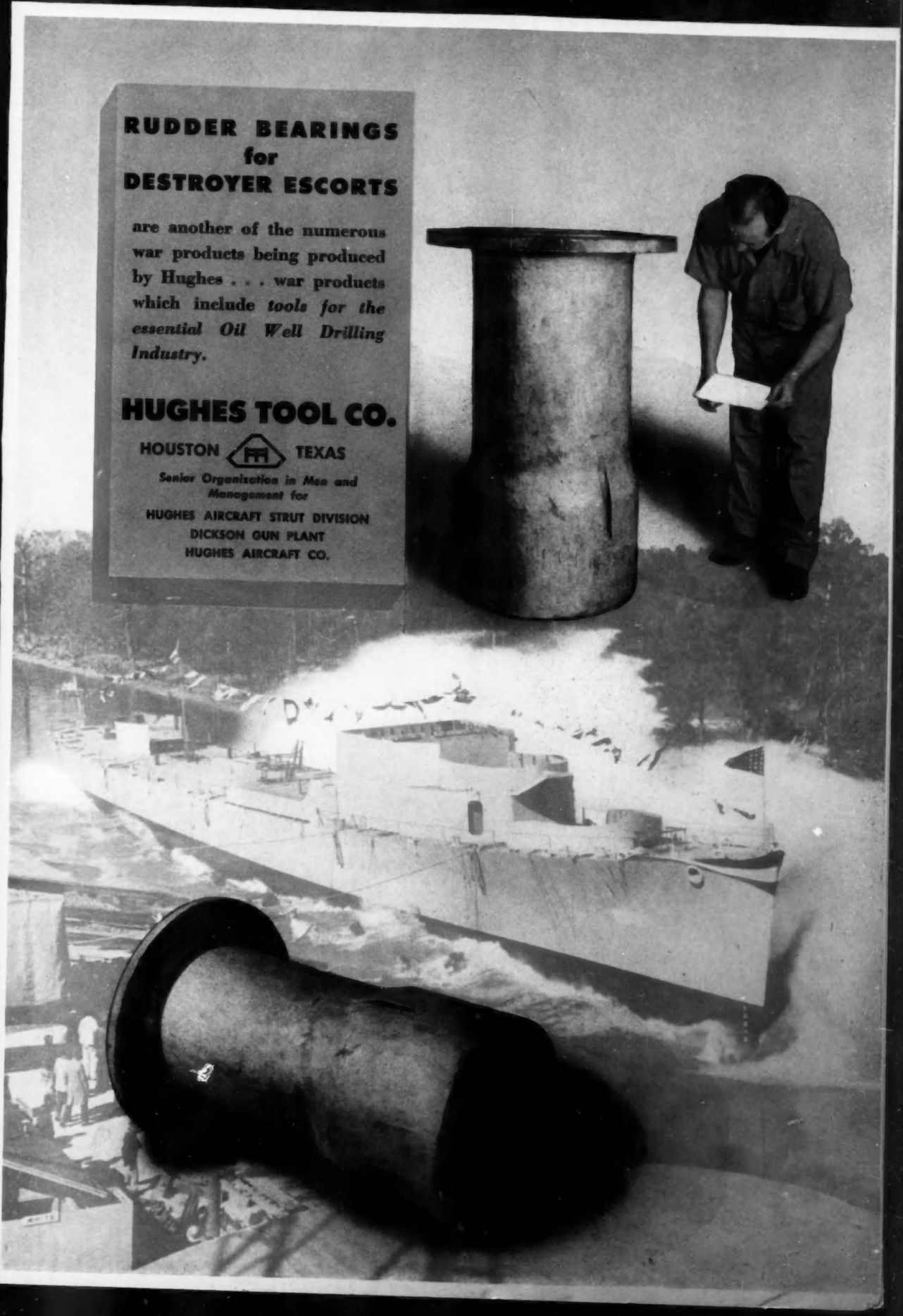
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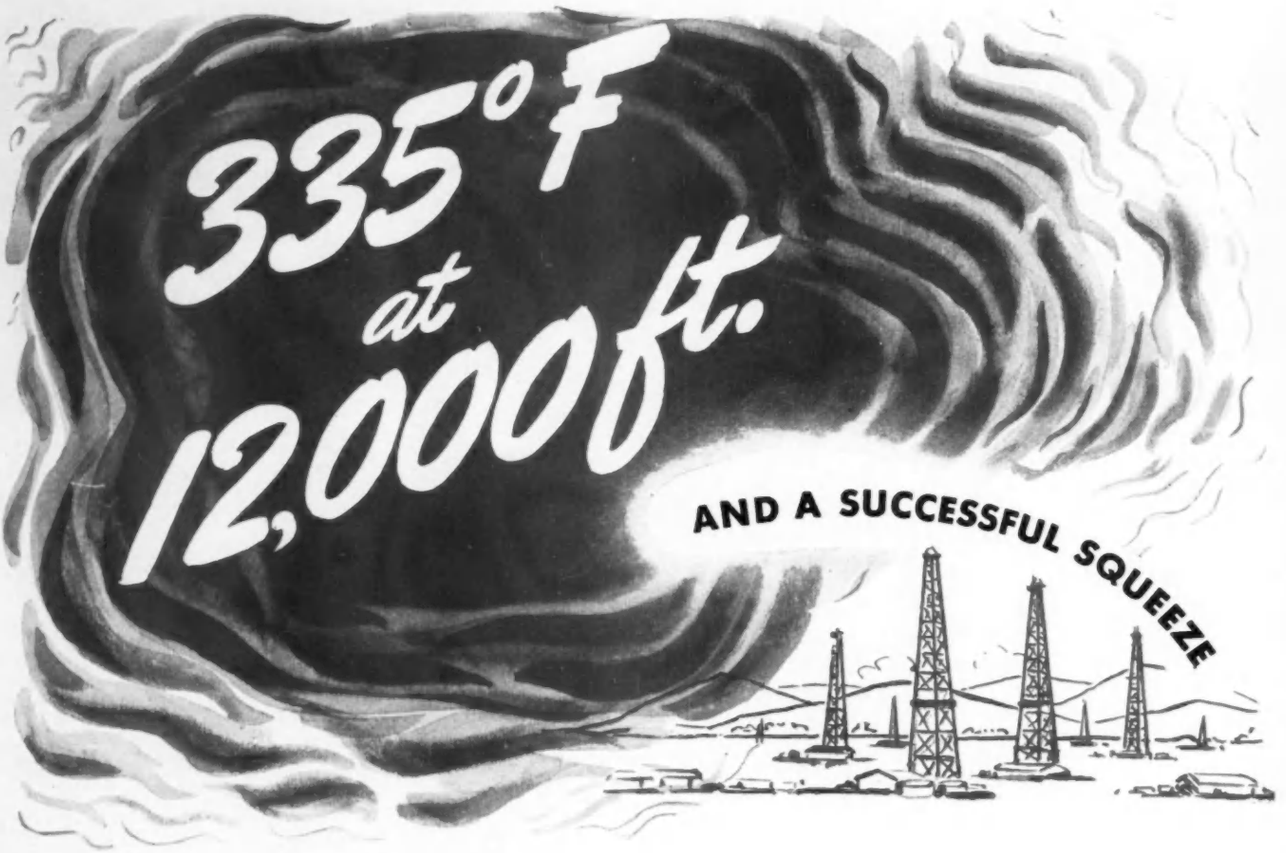


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**for the drilling-producing-pipeline industry**

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**for the refining-natural gasoline industry**


# THE OIL WEEKLY

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## LOOKING AHEAD
### ...with the Editor

KEEPING abreast of advance methods of operation in oil-field engineering is a foremost problem of those operators who wish to make the most of what is afforded in equipment. For most situations likely to arise in producing oil, special equipment or appartus is available somewhere. Publishing information on these interesting and valuable tools is a part of our job, and next week there will appear a full-length feature on "The Explosive Cord," an exceptional device manufactured to facilitate the removal of mud, rust, scale, wax and other foreign matter that clogs the holes and slots of perforated liner or casing and the openings through screen pipe. The cord does just what its name implies, explodes and loosens accumulations that retard the flow of oil into the well. Next week's article gives all the details.

# HOW "Oilwell" HELPS KEEP YOUR WELLS ON THE PUMP

KEEPING wells pumping efficiently has always been important — now it is vital; and critical shortages frequently make it difficult. Here's another place where "Oilwell's" 10-Point Supply Service can be of value to you.

To serve the Industry in the field, "Oilwell" stores are equipped for "on-the-spot" assembling and servicing of subsurface pumps. Store men are especially trained to handle the job with the correct tools in quick, expert fashion—assuring the user the equal of a factory-assembled pump. Such expert care is highly important today when it is so essential that full service life be obtained from every piece of equipment.

The "on-the-spot" assembling and servicing of subsurface pumps in "Oilwell" stores is made doubly helpful by the high degree of interchangeability of "Oilwell" pump parts. All threaded connections of interchangeable "Oilwell" parts are made to A.P.I. specifications, and most parts can be used with all three barrel materials—SILVERLINE, NICKEL-IRON and DI-HARD.

The combination of maximum interchangeability with the assembling of pumps in field stores to suit operating conditions results in maximum utilization of war-restricted stocks—helps keep wells on the pump.

Supporting our store men in their efforts to keep your wells pumping are additional features of "Oilwell" 10-Point Supply Service, including: (1) an efficient warehouse system; and (2) experienced subsurface engineers on whom store men can call for help in solving customers' pumping problems. Consider these and other advantages of "Oilwell" 10-Point Supply Service in relation to your equipment needs.

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1. Dependable source of supply
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3. Adequate warehousing to protect material and speed deliveries
4. Convenient store locations
5. Field engineering assistance
6. Product design and metallurgy keyed to your needs
7. Extensive manufacturing and testing facilities
8. Highest grade supplies for oil and gas field needs
9. Prompt and understanding credit service
10. 81 years of practical experience

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# The Changing Panorama

## API Public Relation Plans Are Important

FORMATION of a Department of Information by the American Petroleum Institute, for the purpose of publicizing the part the petroleum industry is playing in the war, is an important action. As pointed out by THE OIL WEEKLY (September 6, 1943) better public good will is one of the most acute needs of the industry. If the industry properly educates the public on the importance of the oil business, not only in war but in peacetime industrial and civilian life, and also sells the public on the idea that oil is conducting its business wisely and patriotically for the benefit of all, the whole future course of the industry may be improved, including its relationship with the national and state governments.

Now that the API has decided to inaugurate an educational program, it remains for the campaign to be carried out properly. The industry has an excellent story to tell. It has the necessary avenues to reach the public; besides magazine advertising, radio and other facilities available to all industries, oil has the possibility of using posters at filling stations. The latter would reach great numbers quickly and regularly, something few other industries have available. Therefore, the success of the program will depend on how well it is conducted.

A good start toward a properly conducted public relations program has been made in the selection of R. E. (Bob) Allen as director of the program. This engineer is thoroughly familiar with all phases of the industry and also its contributions to both the war and peacetime needs. He has shown an aptitude for economics and public relations, having made an excellent report for the industry several years ago before the Cole Oil Investigating Committee. He was one of the first men Ickes asked to join the old OPC, and until his resignation September 15 had been deputy administrator of PAW, which gives him an insight into the broad workings of both the government and the industry.

Allen's work will be one of the most important in the industry. It is to be hoped that members of the American Petroleum Institute will put at his disposal sufficient funds that he will be able to hire the necessary skilled assistance, including outstanding leaders in the public relations field, that such an important program must have to be successful. It also is to be hoped that he will be fortunate in his selection of these men.

## Production Rises Half Million Daily in Year

THE swelling volume of petroleum products required by military forces of the Allied Nations is reflected by PAW certifications for production in October, which set a new all-time high of 4,638,700 barrels per day. Of the total required, 265,800 barrels consist of natural gasoline and condensate, and the remainder crude oil. A year ago, or October, 1942, the United States produced 4,115,400 barrels of crude oil, natural gasoline and condensate per day. Thus, production has risen 523,300 barrels per day during the past year. Most of this increase has come during the past four months. PAW certification for October is 86,600 barrels above September, 214,000 barrels above August and 310,200 barrels above July.

It is significant that production rates in two of the PAW districts are lower today than a year ago, have risen but slightly in one region, and constitute a material gain in only two areas. District 1, which comprises the eastern stripper area, has declined slightly, being expected to produce 77,200 barrels daily in October as compared with 81,400 barrels a year ago. Declining output also has been recorded in District 2, which is expected to produce 976,500 barrels in October in contrast with an actual output of 1,082,700 barrels a year ago. Smaller production in Oklahoma and Illinois are responsible for the decline. Oklahoma output is down 59,000 barrels and Illinois down 53,300 barrels daily from a year ago.

The real burden of producing larger quantities of petroleum has fallen upon District 3, which has been given a production quota of 2,623,000 barrels for next month. This is 555,100 barrels greater than a year ago. Texas has furnished the bulk of this gain, climbing from 1,492,600 barrels to 1,999,000 barrels. Louisiana, Arkansas and New Mexico also have higher producing rates today, while Mississippi is producing less.

The Rocky Mountain area, District 4, is producing 13,000 barrels more than a year ago. District 5, California, has a quota of 832,000 barrels for October which is 66,500 barrels greater than a year ago.

Texas will produce approximately half of the natural gasoline and condensate production in October, having 127,700 barrels of the 265,800 barrels for the nation. California ranks second, with 46,000 barrels; Oklahoma is third with 27,700 barrels; Louisiana is fourth with 23,000 barrels, with the balance being shared by other states in varying amounts.

**United States Petroleum Producing Trends**

| | October, 1943 | | September, 1943 | October, 1942 |
|---|---|---|---|---|
| | Certified Total Petroleum Liquids | Estimated Natural Gasoline and Condensate | Certified Total Petroleum Liquids | Actual Production Total Liquids |
| **District 1:** | | | | |
| New York | 14,600 | | 14,700 | 14,900 |
| Pennsylvania | 47,000 | 1,000 | 46,400 | 49,500 |
| West Virginia | 15,600 | 6,300 | 15,200 | 17,000 |
| Total | 77,200 | 7,300 | 76,300 | 81,400 |
| **District 2:** | | | | |
| Illinois | 219,500 | 12,000 | 222,800 | 272,800 |
| Indiana | 13,800 | | 13,800 | 17,200 |
| Kansas | 300,000 | 5,700 | 300,000 | 298,000 |
| Kentucky | 26,600 | 2,600 | 25,500 | 13,700 |
| Michigan | 59,100 | 100 | 60,100 | 63,200 |
| Nebraska | 1,800 | | 2,000 | 2,800 |
| Ohio | 10,000 | 400 | 10,300 | 10,300 |
| Oklahoma | 345,700 | 27,700 | 347,000 | 404,700 |
| Total | 976,500 | 48,500 | 981,500 | 1,082,700 |
| **District 3:** | | | | |
| Arkansas | 81,700 | 4,700 | 80,100 | 74,900 |
| Louisiana | 375,700 | 23,000 | 375,000 | 332,400 |
| Mississippi | 50,000 | | 50,000 | 68,600 |
| New Mexico | 116,600 | 5,600 | 116,600 | 99,400 |
| Texas | 1,999,000 | 127,700 | 1,909,000 | 1,492,600 |
| Total | 2,623,000 | 161,000 | 2,530,700 | 2,067,900 |
| **District 4:** | | | | |
| Colorado | 7,000 | | 6,500 | 6,300 |
| Montana | 23,400 | 400 | 23,300 | 22,700 |
| Wyoming | 99,600 | 2,600 | 98,800 | 88,700 |
| Total | 130,000 | 3,000 | 128,600 | 117,700 |
| **District 5:** | | | | |
| California | 832,000 | 46,000 | 835,000 | 765,500 |
| Others | | | | 200 |
| Total U.S. | 4,638,700 | 265,800 | 4,552,100 | 4,115,400 |

## Navy Growth Explains Large Oil Consumption

WHY military consumption of petroleum products is increasing by leaps and bounds is explained by the recently released inventory of the United States Navy. Industrial America, pouring out planes, ships and munitions for its Navy at a rate never before achieved in history, has built up the mightiest sea-air power in the world.

The United States fleet now includes 14,072 vessels, 613 of them warships. In 1940, the Navy had only 1076 vessels, of which 383 were fighting craft. The tonnage of fighting ships was 20 times greater in the first six months of this year than in the first half year of the

preparedness program. The Navy reports 333 fighting ships have been completed since July, 1940, but the greatest addition has been in landing craft that carry troops ashore on invasions. There have been 12,964 landing boats constructed. During the period 58 warships were lost and 129 transferred to other nations or converted to non-combat use.

The Navy air arm now has more than 18,000 planes, compared with 1744 three years ago.

During July, 1943, the Navy received almost 1200 completed vessels and close to 2000 planes. By contrast, in the same month three years ago, 5 new vessels and 25 new planes were delivered. These figures are exclusively Navy, and the Army has been expanding its air force at an equal rate if not faster.

## Congress Faces Real Problem in Taxes

WITH tax legislation now coming to the forefront in Washington, comparison of current government financial statistics with those of a decade ago gives point to the plaints of Congressmen that it will be impossible to raise the $12,000,000,000 in new money sought by the Administration and difficult to develop even half that amount.

In the past ten years, federal revenues have grown from $2,000,000,000 to $38,000,000,000, and the number of taxable individuals has jumped from 2,000,000 to 40,000,000 although the number of corporations has shown only a slight change.

As to rates, the initial tax on individual income has risen from 4 to 22 percent—the latter including the six percent normal tax, 13 percent surtax and the net 3 percent Victory tax, while corporations which 10 years ago were subject to a tax of 13¾ percent on all net income now pay a 90 percent excess profit and a 40 percent normal rate.

In the light of these figures, there is considerable doubt in some Congressional circles whether it would be safe to raise corporate rates still further. At the same time, it is feared that further increases in individual income taxes would result in an offsetting decline in bond sales, the net result of which would be to leave the Treasury's income unimproved.

The situation is further muddled by price ceilings and shortages of labor and equipment which make it impossible for most producers to better their income either through increased prices or lower production costs. This is particularly true in the oil industry, where present ceilings are based on pre-war costs while production expense has risen appreciably, and where it is felt that any action by Congress leading to higher rates or elimination of the depletion allowance, consistently urged by the Treasury, may lead to disaster for many of the smaller operators.

## Output of Steel Breaking Records

NEARLY 51,243,000 tons of steel ingots and castings were produced during the first seven months of 1943, a record-breaking production. Still more tonnage would have been turned out in this period if the series of coal strikes had not cut May and June output several hundred thousand tons below the level of preceding months. Despite this handicap, there is every reason to expect that steel production for the whole of 1943 will exceed last year's record of 86,032,000 tons.

At the rate of production so far in 1943, the total for this year would be approximately 89,000,000 tons of steel. Actually, however, steel output in 1943 is likely to exceed that figure. Production of as much as 90,000,000 tons is not unreasonable to expect.

The main reason for expecting greater production in the second half of the year is that steel furnace capacity is increasing steadily as a result of new furnace construction. New furnaces with a total capacity of 4,000,000 tons a year are scheduled to come into production, most of it in September or later. Another factor which may increase production is the current drive to get more steel from existing furnaces.

## Congress Will Study War Plant Disposal

MEASURES dealing with the disposition of war plants and surplus property of the military services are beginning to make their appearance in Congress and there is a possibility that a definite plan for handling this problem will be worked out before the end of the year.

First measure to be introduced as Congress re-convened was offered by Representative Wright Patman of Texas, and called for the appointment of a Cunstodian of Surplus War Property empowered to operate surplus plants until recommendations were submitted by the Smaller War Plants Corporation to lease, sell or otherwise dispose of it. The bill contemplates that small business enterprises be given first call upon these facilities.

The government-owned war plants fall into several categories—those that can be used "as is" for civilian operations, such as the synthetic rubber plants; others which have buildings suitable for peacetime production but have machinery and equipment which must be converted or replaced; still others of such specialized character that they could not be economically converted to civilian production, and still others of a non-permanent construction which could not be used after the war.

The surplus supplies which the government will have on hand at the end of the war will include chemicals, industrial machinery, transportation equipment, metals, wearing apparel, foods, etc., scattered throughout the world.

The problem of post-war disposition was extensively studied last year by the defunct National Resources Planning Commission, which issued a lengthy report this spring in which it recommended that certain plants, such as the synthetic-rubber factories, be retained by the government as a guard against recurrence of the situation in which the country found itself at the outbreak of the war and that others be disposed of to private operators, either by outright sale or under operating contracts.

## West Texas Lacks Loading Racks

PRELIMINARY survey of the availability of crude in West Texas for tank car movement to Middle West refineries, considered desirable as cars are released from Eastern service because of enlarged pipe line capacity, reveals that the facilities for loading will involve numerous difficulties.

PAW representatives have enlisted the aid of Atlantic Pipe Line Company in handling rail movement of 25,000 barrels or more daily from the company's Midland tank farm and pipe line terminal on the main line of the Texas & Pacific Railroad. No rack is available at Midland, but the company has an idle siding and the necessary equipment near Neale, Louisiana, that was used for some months in relaying Permian Basin oil to the East Coast after it had been moved to Neale by pipe line. However, Atlantic Pipe Line Company does not have an excess of crude above its Midland-Atreco trunk line capacity, and tank car loadings would have to be supplied by other carriers within reach of the company's Wink-Midland 10-inch line.

# Little-Inch Oil Lines of the BATTLE ZONES

**Training that Army is giving special petroleum distribution companies at Camp Claiborne provides good insight into makeup and functions of these units, as well as how Army keeps machines of war at the battle front supplied with oil.**

THE ubiquitous engineer, already known in this war as the soldier with many jobs, has bobbed up in recent campaigns in a new role, and with new equipment—a portable, lightweight steel pipeline that carries petroleum products or water into the battle area, for the Allied men and machines of invasion.

The advantages of such a supply system are apparent. Laid alongside a road, the pipe line can do the work of tank trucks, and relieve congestion in traffic, plus saving tires, machines, and manpower.

Although nothing can be guaranteed safe from enemy bombing and strafing, the thin shadow of a pipe along the ground is a target not easy to hit. Parts of the installation other than the pipe lend themselves to camouflage.

Some of the engineer troops that provided this on-the-spot liquid supply service via pipe line were activated and trained at the Engineer Unit Training Center, an Army Service Forces installation at Camp Claiborne, Louisiana. An undisclosed number of the petroleum distribution companies — as the pipe-line units are called—have left for overseas duties. More are in training.

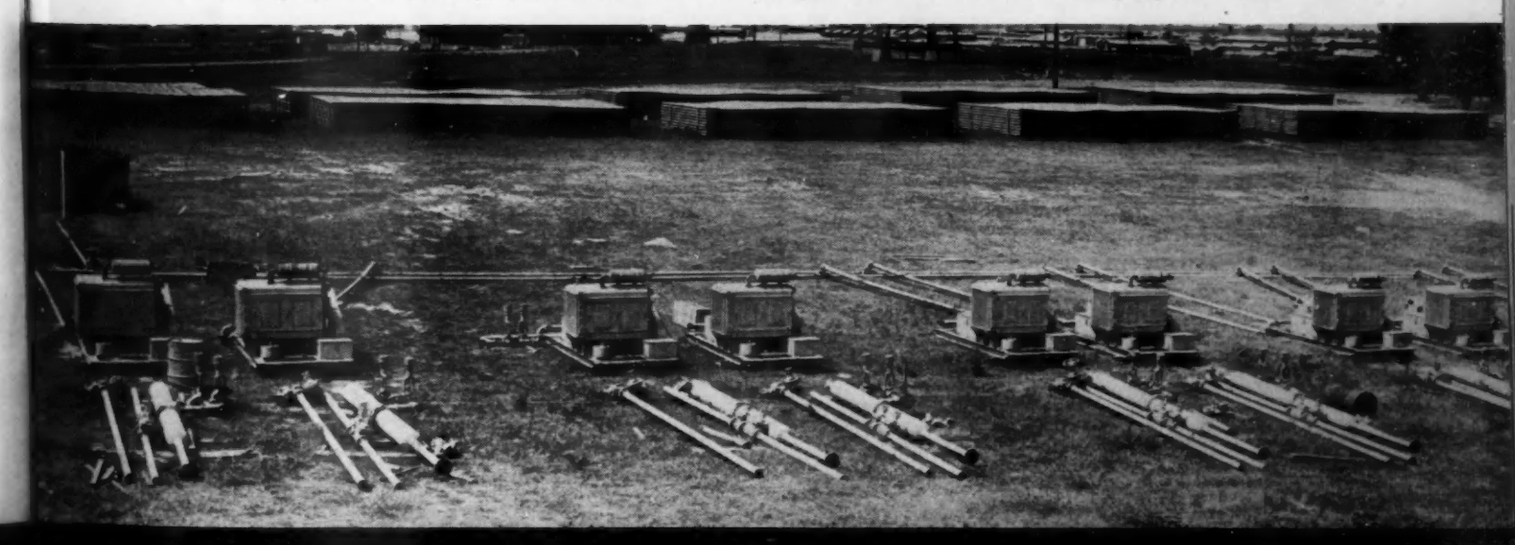
The companies are one of the dozen varied types of engineer troops schooled at the Engineer Center, which is under the command of Brigadier General John W. N. Schulz.

From the training given the petroleum companies, a good insight into their makeup and functions can be had. One should bear in mind, however, that combat conditions may alter the theory as taught.

The "artery" of the distribution system is the portable pipe line which each company lays, operates, and maintains, and which can carry any liquid an army would need. A skilled crew can lay the pipe atop the ground at the rate of 10 miles a day, under favorable conditions. Thus not so long after the crew begins construction, the slender line can be throbbing with the lifeblood of modern war—gasoline for the planes of the Allies, diesel fuel for the slower earthbound craft, or water.

Two sizes of the pipe are in use in

**A group of pumping units, each consisting of an engine and a reciprocating pump, are bunched together for testing purposes at Camp Claiborne. The units look very much like typical oil field equipment, being made up from machinery familiar to the oil field worker and mounted on skid bases. Sand traps, consisting of sections of larger diameter pipe, appear in foreground. A stockpile of 100 miles of the portable pipe is in the background. In actual operations of the petroleum distribution companies in training at the E.U.T.C., Camp Claiborne, Louisiana, the pumping units are spaced much farther apart, to simulate conditions the companies will meet when their training days are over.**



**Members of a petroleum distribution company, in training at the E.U.T.C., Camp Claiborne, practice laying portable pipe line which they will use in war theaters when their training is completed.**

the training—four-inch and six-inch. To cite the portability of the line, a 20-foot joint (the usual length) of the four-inch steel weighs but 90 pounds.

The lengths of pipe are joined together by a flexible coupling and a rubber gasket. The latter needs no shellac, and can be used more than once. Tighten the two bolts in the coupling, after the grooved ends of two joints of the pipe have been butted together and gasketed, and the line is under construction. Repeat this process 264 times, and you have laid one mile of line.

The joints account for the flexibility of the line, for the pipe itself has no "give." Because of the joints, the line can follow easily the more gentle curves of the earth, over hills, across valleys.

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***All photographs accompanying this article were taken by U. S. Army Signal Corps at Camp Claiborne, Louisiana, and have been approved for publication by the Public Relations Officer of that Army camp.***

For sharper bends, however, an "elbow" must be used. The joints will stand some bouncing from near-hits by falling bombs. At river crossings, where the water is not swift enough to tear the line out, the men of the petroleum companies can sink their line to the bottom of the river bed, using heavy clamps for weights.

The "heart" of the portable pipe-line system is the pumping station, which is moved by truck. The station consists, in the main, of an engine, a pump, and a sand trap, the latter for catching abrasives that might clog the flow, or wear the pumps.

Utilizing a reciprocating pump, a semi-automatic system can be set up for the delivery of a uniform flow through each station. For example, the four-inch line, can be made to carry 200 barrels an hour, with a pressure differential of 200 pounds. That means the 200 barrels will be pumped along if the pressure drop between two stations is no more than 200 pounds. As the system in use for training is designed, the stations can be 10 miles apart on level ground, before the flow of liquid goes below 200 barrels. In mountainous country, this distance will shorten. Under the best of conditions, one petroleum distribution company can take care of 120 miles of the 4-inch line.

If the system is operated semi-auto-

**This coupling holds two 20-foot joints of the portable pipe line together, making a tight and rapid connection, yet allowing for flexibility, so that the pipe line can follow the easier undulations of the ground. Rubber gaskets prevent leakage of fluids being pumped through the line.**

**Making final tightening operation on flexible coupling that holds together two joints of the portable pipe line.**

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portable tank in a day. A number of these containers, dispersed and concealed about an airport, make for a decentralized gasoline supply not as vulnerable to air attack as the traditional large storage tank.

There is very little that is new and startling about most of the equipment used by the petroleum distribution companies, although its employment in battle is a growth of this war. The hydraulic control that insures a uniform flow is a new development, and was designed by S. S. Smith, of Shell Oil Company (THE OIL WEEKLY, August 9, page 11). Smith also did the pioneer work in designing the system that would bring together the various parts of standard equipment.

Further research was contributed by men of the Engineer Unit Training Center plans and training section's petroleum sub-section. The present head of that sub-section is Captain R. A. Gray, a petroleum engineer from Los Angeles. He and his associates set up the training system that the Engineer Unit Training Center uses in preparing the distribution companies for overseas duties. The companies are grouped for purposes of administration as members of several provisional regiments under

matically, one has only to start the pumps. The hydraulic control will keep the flow uniform, at the desired rate. If a break occurs in the line, the pumps ahead of the breach automatically slow to an idle, thus saving wear on the motors pumping against the dry line. To the practiced eye, the pressure on the upstream station will indicate within a half mile where the line is broken.

The distribution company can tap the line for delivery of fuel at any point between the terminals, and needs no storage points except at the ends of the line. For this purpose, portable steel tanks are provided, in capacities that range upward from 250 barrels. The tanks are carried in sections, which are gasketed and bolted together when a storage point is needed. The average crew of six men can erect a 500-barrel

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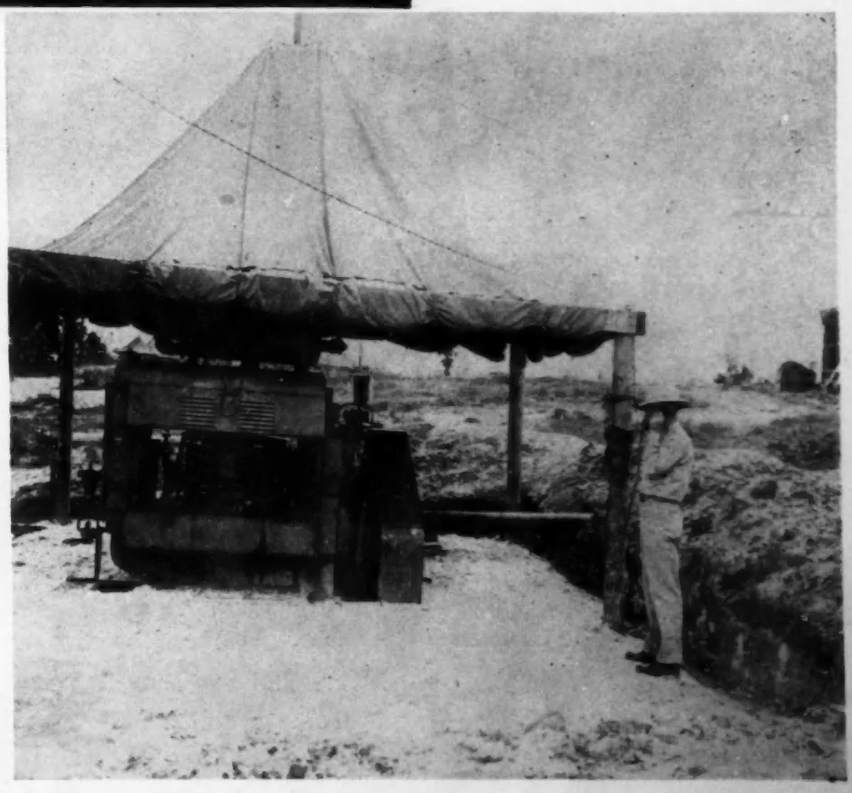

**Pumping station in operation on portable pipe line at the E.U.T.C., Camp Claiborne. The phone is used to contact other stations along the line.**

**Another view of a pumping station, showing engine, pump and sandtrap (in foreground) used in training petroleum distribution companies at Camp Claiborne.**

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**Erecting a portable steel tank for storage of liquids at terminal points along a portable pipe line.**

the Third Provisional Training Brigade, headed by Colonel R. M. McCutchen. Lieutenant Colonel Harold F. Scariano and Majors Davis M. Shryer and Joseph M. Plant are among the commanders of the provisional regiments, which have jurisdiction over the companies during their training. In the companies themselves are a host of skilled pipe-line and petroleum men too numerous to list here.

The trainees of the petroleum companies receive the standard engineer basic subjects for the early weeks of their stay at Camp Claiborne. Next come two weeks of primary pipe-line school, and two weeks of advanced, to familiarize the men with the specialized equipment they will employ. Those weeks are followed by two more, for a field problem, during which time each company sets up a pipe-line system and operates it (pumping water), under the direction of the commanders they will have in the theater of operations.

During this period they must keep the water pumping in spite of "sabotage" by members of the petroleum sub-section, who may go so far as to blast out the line, to teach the operators to find and repair a break quickly. Operations under blackout conditions are included in this stage of training, and help impress the trainees with what they may encounter in the field later. Following the problem, the company is ready for action.

Theirs will be the job of laying and guarding one of the lifelines of battle.

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# Oil and Gas Fields of Jackson County, Texas

**Area of more than normal interest in view of 11 oil and gas fields discovered since 1940, some of which are first-class pools**

By DR. J. BRIAN EBY
Consulting Geologist, Houston, Texas

THE comparatively large number of oil and gas field discoveries made in Jackson County, Texas, in the past three years, makes it an area of more than usual importance. Eleven oil and gas fields have been opened in the county since January 1, 1940, and seven between 1934 and 1940. Prior to that date only the old Edna gas field, dating from 1921, was known.

The increasing importance of the area is further indicated by the region's growth in rate of producing oil. Almost half of the 20,975,479 barrels of oil that have been produced from the 19 producing fields was obtained during the year 1942, when 9,913,571 barrels were produced. At the end of 1942, the region was producing 30,452 barrels per day, or at an annual rate of more than 11 million barrels.

This county lies on the Texas Coastal plain, midway between Houston and Corpus Christi and only a few miles back from the coast. Edna is the county seat and largest town.

The map of Jackson County and vicinity presented here (pages 22 and 23) shows the present outline of production of all fields in and near the county, and whether the field is predominantly oil or gas. The map also gives all important wildcat wells, with names and total depths, and the locations of five crossing-sections, A-A', B-B', C-C', D-D', and E-E' (Figures 1, 2, 3, 4, and 5) are indicated.

The five cross sections are based on electrical-log correlations from key wells and extend generally north-southeast or at approximately right angles to the regional strike of the subsurface. It will be seen from these cross sections that wells are drilled to an average depth of about 6000 feet. The names and divisions of the successive formations encountered in this drilling are indicated on the accompanying chart, Figure 6,. On this chart the relative thickness of each formation is indicated by different spacing given each formation. It is obvious

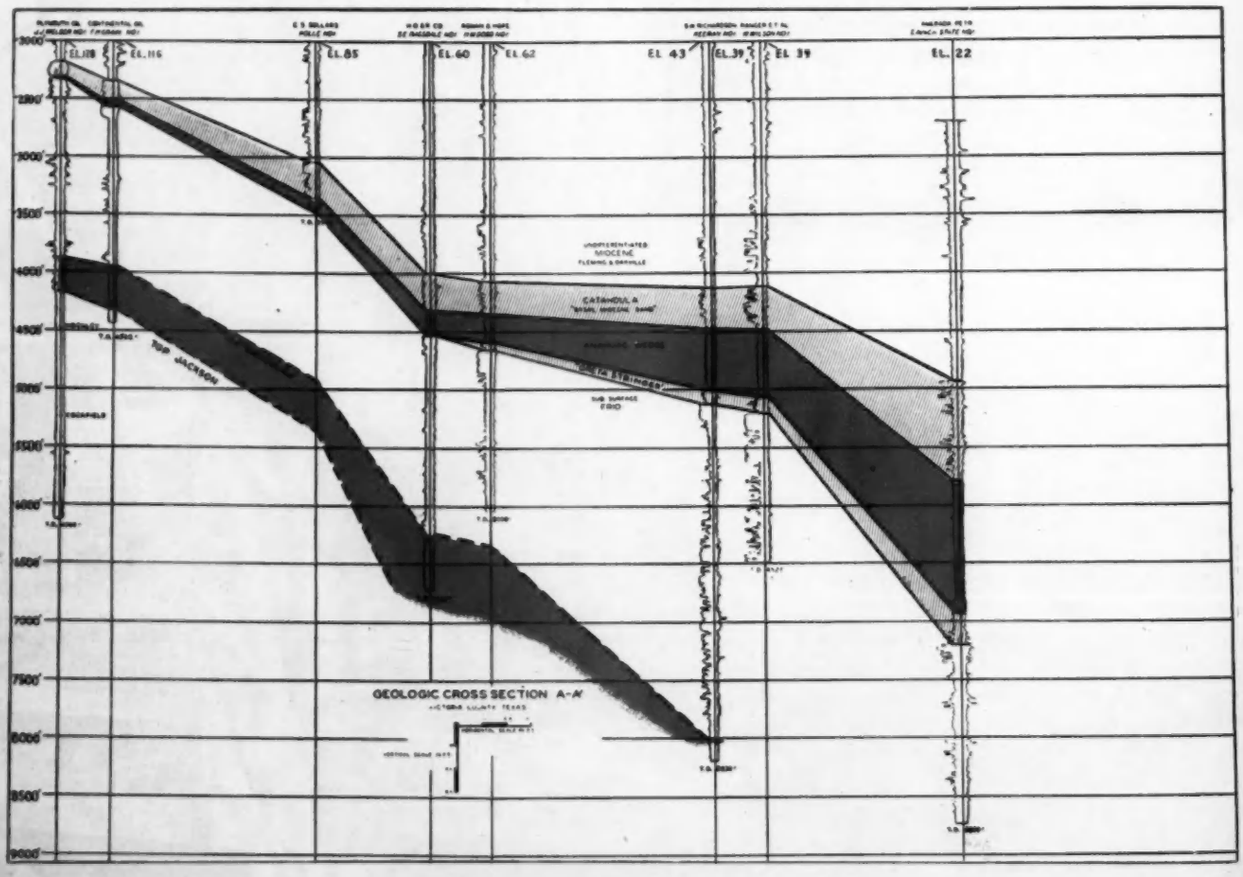


FIGURE 1

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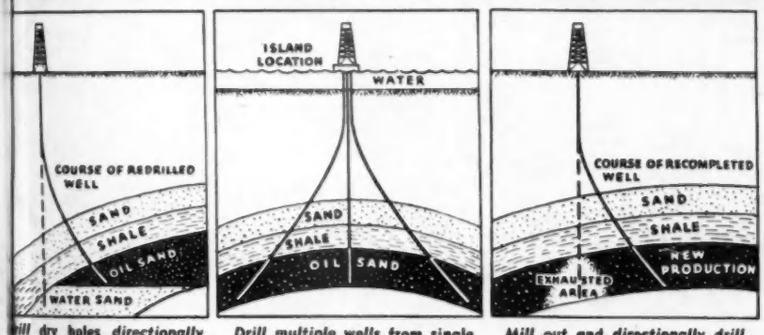


ill dry holes *directionally* more favorable position on the structure.




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from the cross sections that the thickness of these formations varies, with the normal tendency to thicken in the coastward direction. This is particularly true of the Anahuac Wedge[1], which formation is entirely absent in the northwest corner of the county and rapidly thickens coastward.

The contours appearing on the map are based on subsea depths at the base of the Anahuac Wedge. Since the contour interval used is 500 feet, the contours should be viewed as position markers rather than contours indicating local or detailed structural features.

In addition to giving the position of the Anahuac Wedge generally across the county, the contour map also indicates the approximate depth to the top of the Frio-sand section which immediately underlies the Anahuac. This Frio-sand section is the objective of most of the drilling in this region.

Several Jackson County fields will be contoured and discussed in detail by Joseph Hornberger, Jr., in the next week's issue of THE OIL WEEKLY. This paper is concerned primarily with the regional feature of the surface and subsurface.


**Large-Scale Map**

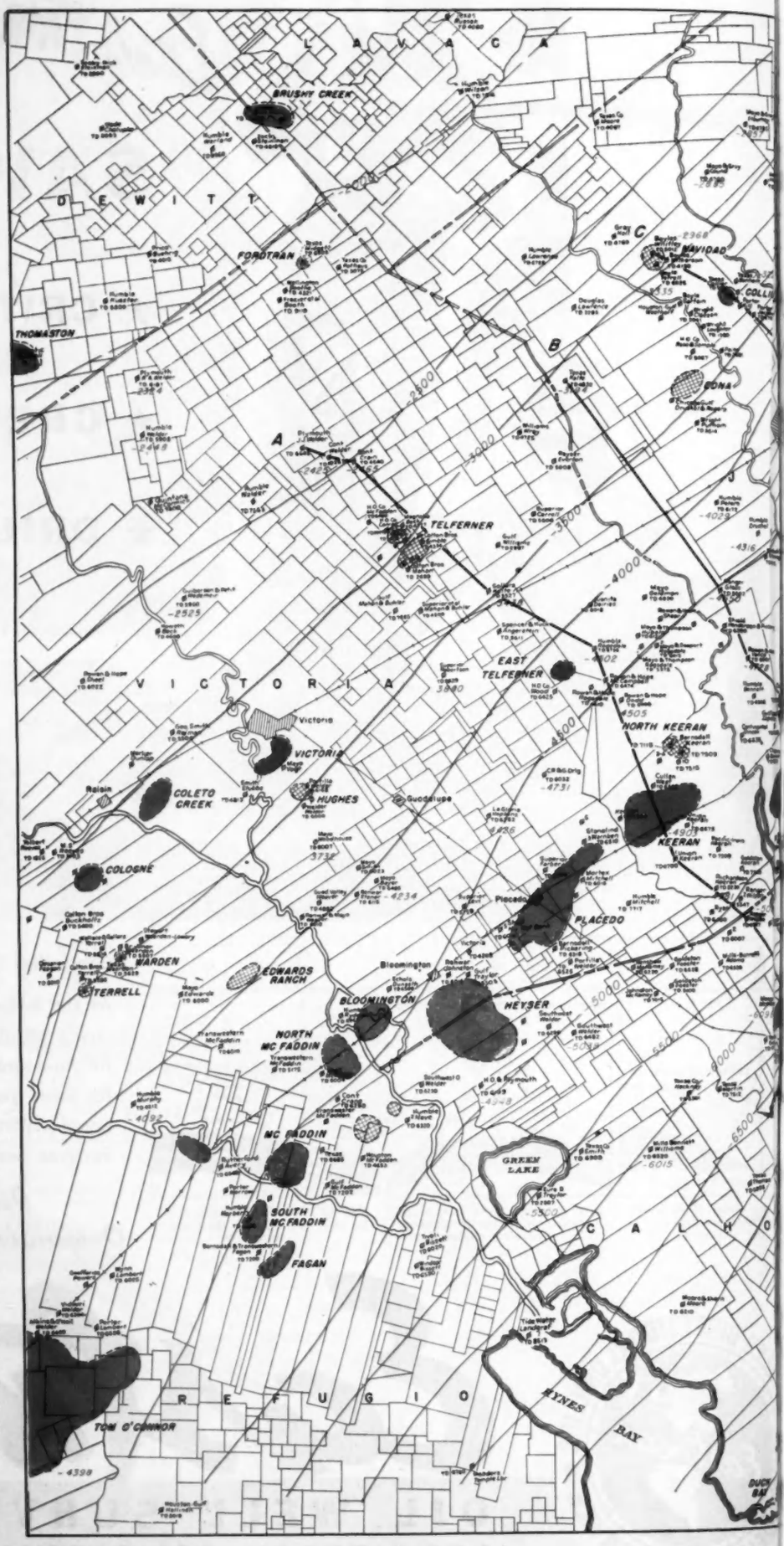
**Large-scale, one-color, regular photostat copies of the accompanying map are available on a larger scale than possible to reproduce here.**

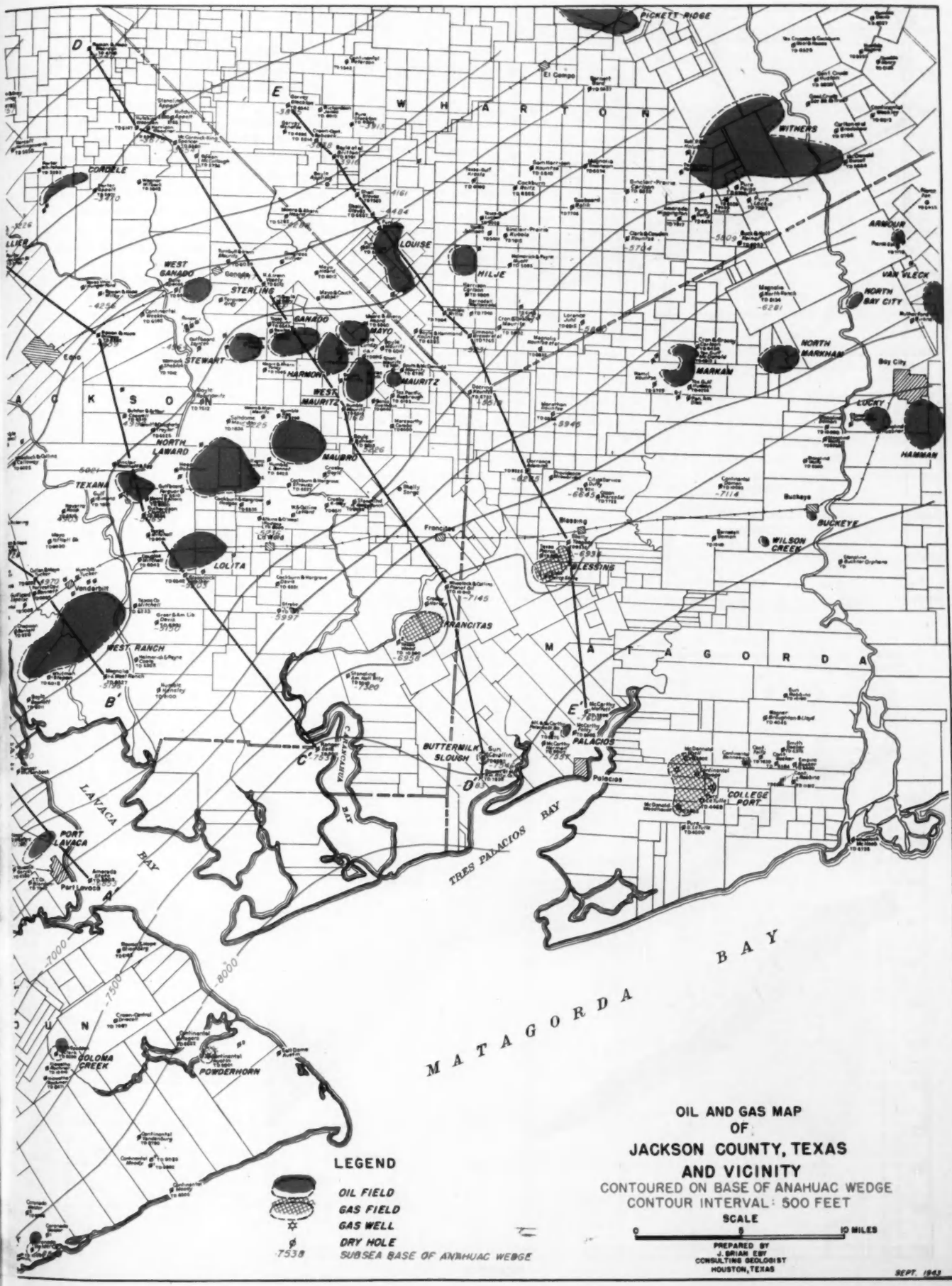
**Blue lines on heavy 100 percent white rag paper, size 41 inches wide and 33 inches in height, at $4.00 per copy.**

**Send order and remittance to Editorial Department, The Oil Weekly, Box 2608, Houston 1, Texas.**


The Anahuac Wedge is the marine shale formation that many geologists place just below the base of the Miocene. In Jackson County this formation is easily recognizable in the drilling of the well as a dark greenish shale. On the electric log it is easily detected as clearly indicated by the five cross sections. The wedge ranges in thickness from about 1600 feet in the southeast corner of the county to its feather edge near the northwest section of the county. While the wedge is a lithologic unit, it is not a time unit and undoubtedly contains beds of the equivalent age of the Discorbis and Heterostegina. The Marginulina seems to be largely absent. From the practical oil man's view, however, since the wedge directly overlies the main oil-producing sands of the county and since the base of the wedge is a conspicuous marker both in drilling

[1] The name "Anahuac Wedge" and the geologic nomenclature used in this paper is adapted largely from a preliminary report by a committee of the Houston Geological Society, a report which has not yet been fully accepted. A more complete discussion of the Anahuac Wedge will appear shortly in the technical geologic literature.




PICKETT RIDGE
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BUCKEYE
WILSON CREEK
BLESSING
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LOUISE
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WEST GANADO
STERLING
GANADO
MAYO
STEWART
HARMON
MAURITZ
WEST MAURITZ
MAUBRO
NORTH LAWARD
TEXANA
LOLITA
WEST RANCH
CORDELE
EL CAMPO
FRANCITAS
PORT LAVACA
COLOMA CREEK
POWDERHORN
TRES PALACIOS BAY
LAVACA BAY
MATAGORDA BAY
WHARTON
JACKSON
MATAGORDA
CALHOUN
A
A'
B
B'
C
C'
D
D'
E
E'
-7000
-7500
-8000
LEGEND
OIL FIELD
GAS FIELD
GAS WELL
DRY HOLE
-7538 SUBSEA BASE OF ANAHUAC WEDGE
OIL AND GAS MAP
OF
JACKSON COUNTY, TEXAS
AND VICINITY
CONTOURED ON BASE OF ANAHUAC WEDGE
CONTOUR INTERVAL: 500 FEET
SCALE
0 5 10 MILES
PREPARED BY
J. BRIAN EBY
CONSULTING GEOLOGIST
HOUSTON, TEXAS
SEPT. 1943

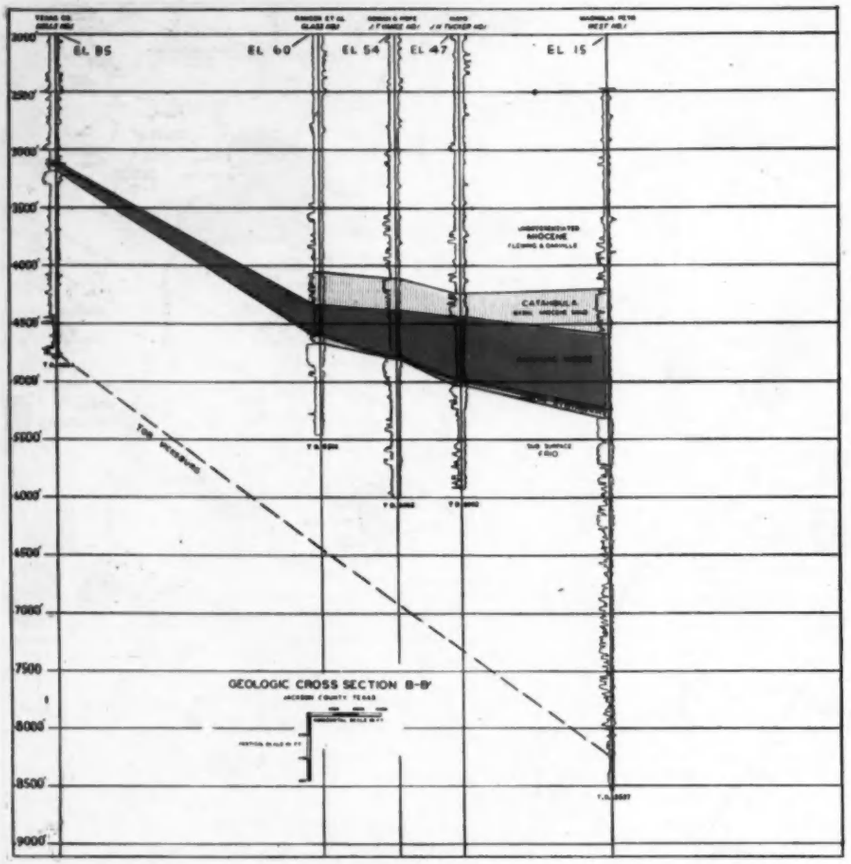


FIGURE 2

and electric logs, the position of the base of this wedge is one of the most important features of the subsurface. The Anahuac Wedge, being a blanket of impervious shale, is the caprock which serves to hold much of the oil and gas in the upper Frio sand. The Frio formation, including the Greta stringer, underlies the Anahuac Wedge. Oil sands in the Frio account for the major portion of the oil in the county. The basal sands of the Miocene, the Catahoula formation, account for a small portion of the oil in the county.

The oil and gas fields of Jackson County, in the sequence of their discovery are listed in Table 1.

### No Salt Domes

There are no known salt domes in Jackson County, the nearest one being Markham, about 10 miles east of the county in Matagorda County. The principal oil-field structures are the domal or anticlinal types, the stratigraphic trap and the faulted structure. The West Ranch, Lolita, Maubro and North La-Ward fields are examples of the domal or anticlinal type. The Mauritz, West Mauritz, Harmon and Mayo are of the stratigraphic-trap type. Cordele and Collier are Luling-type structures, that is, down on the northwest and up on the southeast. West Ganado and Ganado

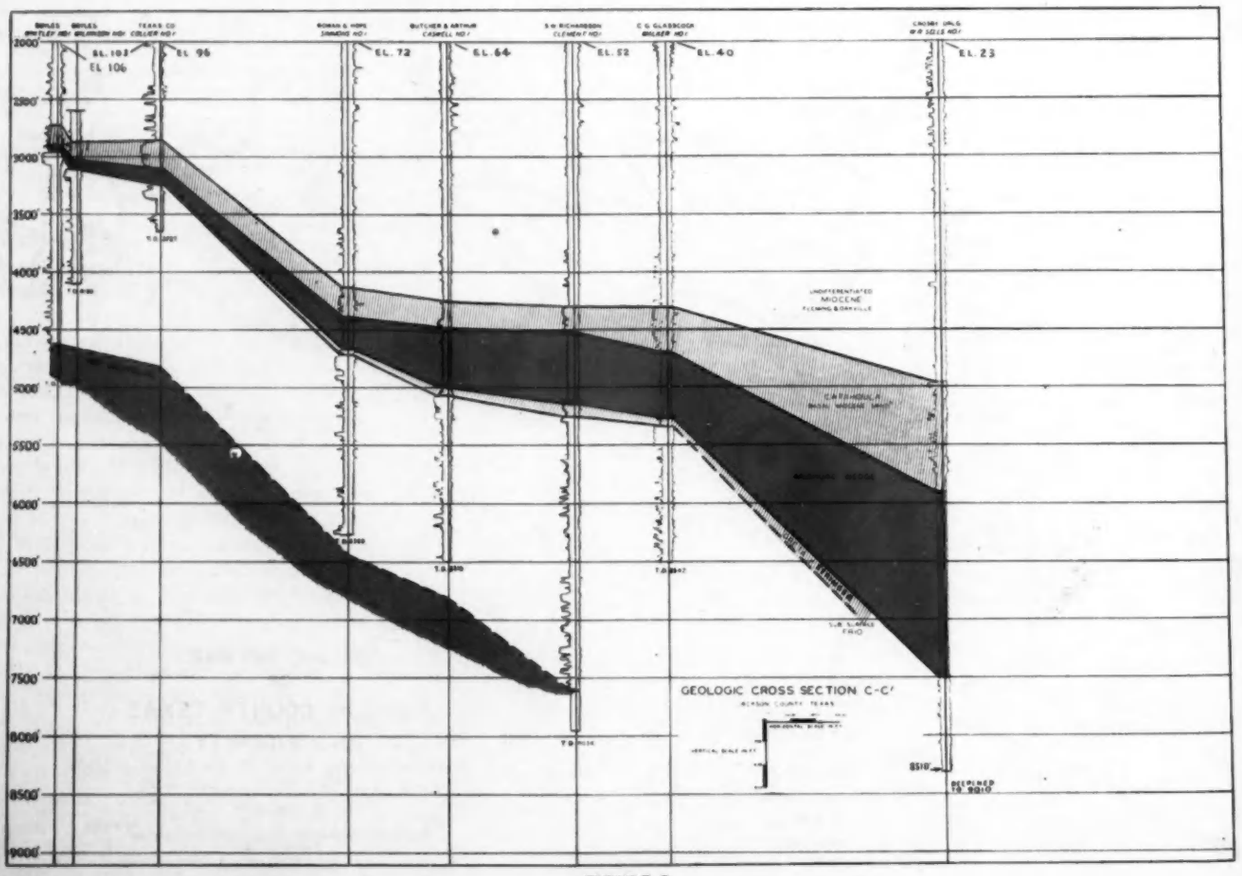


FIGURE 3

are on the downthrown side of faults, that is, down on the southeast.

### Frio Producing Source

All of the producing fields in the county, with the exception of Cordele and Collier, are producing from sands in the Frio formation. West Ranch and Lolita have several producing sands in this formation, and North LaWard, Ganado and West Ganado have two or more producing Frio sands. Of about 22,000 producing acres in the county, 20,000 acres cover the Frio sand fields.

In examinng the contours on the map it will be found that the vast proportion of the Frio fields occur between the 4500- and 5500-foot contours. It is interesting to point out that in Jackson County a little over eight percent of all the acreage in the county between these two contours is producing acreage. The "Frio Trend," as it is frequently called, can quite well be defined in Jackson County as the area between the 4500- and 5500-foot contours on the base of the Anahuac Wedge.

The structures defined as stratigraphic traps are such features as sand lenses and stringers and frequently lack any structural bending or folding of beds. Such traps may accumulate oil and gas in commercial quantity only if the most optimum conditions of porosity in the sand prevail. Under such conditions it is easy to see the difficulty of locating traps by geophysical means. In rare cases geophysics may help but more often they can be located by careful subsurface or wildcatter's luck or a combination of both.

The faulted structures lend themselves to geophysical methods as, of course, is the case of the anticlinal types. The lack of piercement salt domes accounts for the comparatively late start in the intensive drilling development of the county. The ten-year period from 1924 to 1934 found both geophysics and drilling concentrated on the counties with known domes.

While reserve figures are not available, such fields as the West Ranch, North LaWard and Lolita are recognized as first-class oil fields. On the basis of daily and annual production figures alone, they represent excellent

**TABLE 1**

**Oil and Gas Fields of Jackson County, Texas**

(All statistics as of end of 1942)

| FIELD | Year Found | Producing Wells | Daily Production | Production in 1942 | Total Cumulative Production |
|---|---|---|---|---|---|
| Edna | 1921 | .... | .... | ..... | 4,493 |
| Vanderbilt | 1934 | .... | .... | ..... | 195,533 |
| Ganado | 1935 | 6 | 113 | 45,724 | 227,657 |
| Mauritz | 1935 | 8 | 198 | 65,699 | 568,420 |
| Cordele | 1938 | 44 | 710 | 326,671 | 2,354,018 |
| Francitas | 1938 | 10 | 206 | 65,584 | 323,334 |
| West Ranch | 1938 | 377 | 15,978 | 5,243,272 | 11,067,815 |
| Texana | 1939 | 1 | 22 | 8,683 | 23,264 |
| Lolita | 1940 | 177 | 6,591 | 2,258,006 | 3,919,235 |
| West Ganado | 1940 | 32 | 1,028 | 326,661 | 421,011 |
| Ganado (Deep) | 1941 | 30 | 948 | 252,057 | 316,108 |
| Maurbro | 1941 | 57 | 1,520 | 505,367 | 708,330 |
| North LaWard | 1941 | 69 | 1,758 | 543,334 | 573,748 |
| Collier | 1942 | .... | .... | ..... | ..... |
| Harmon | 1942 | 8 | 381 | 111,533 | 111,533 |
| Mayo | 1942 | 15 | 521 | 99,689 | 99,689 |
| Stewart | 1942 | 4 | 210 | 26,768 | 26,768 |
| West Mauritz | 1942 | 4 | 268 | 34,523 | 34,523 |
| Sterling Field | 1943 | .... | .... | ..... | ..... |
| Totals | .... | 842 | 30,452 | 9,913,571 | 20,975,479 |

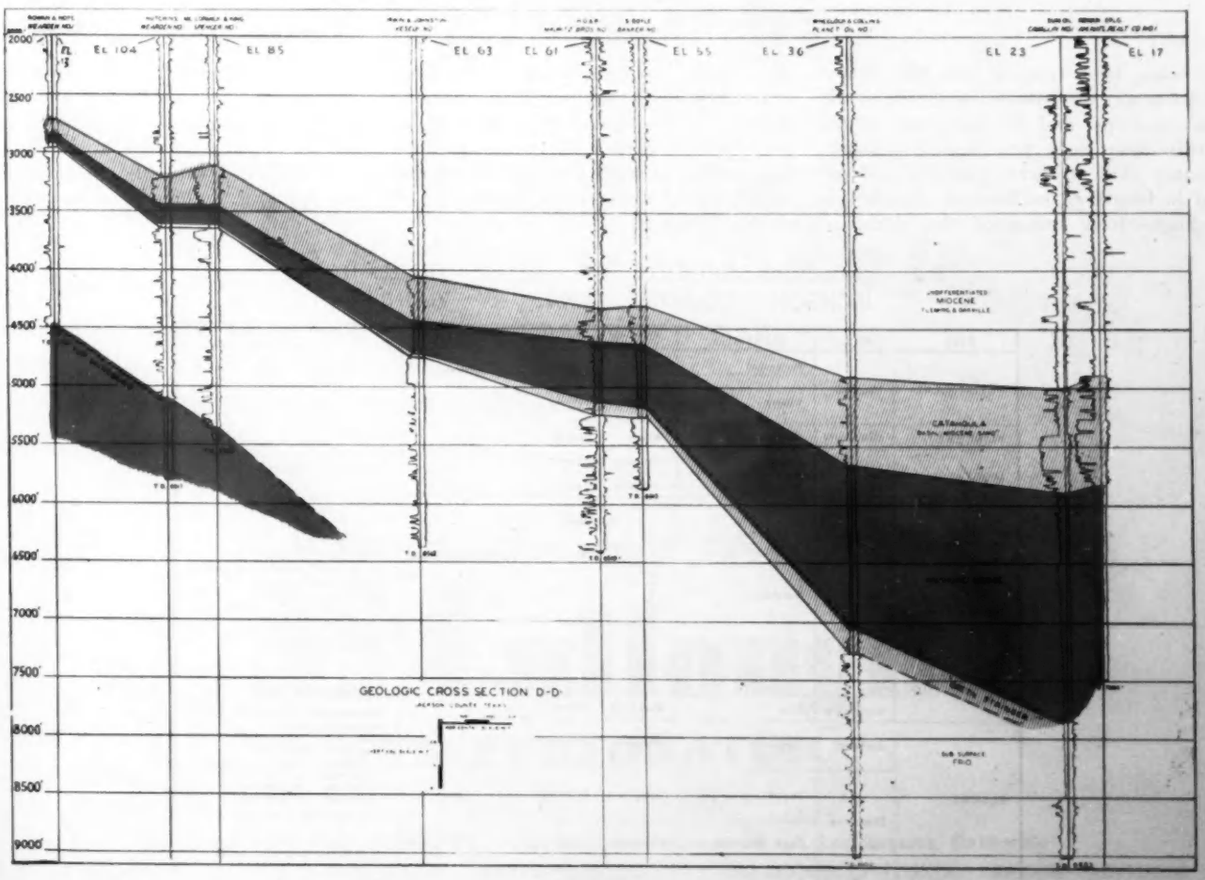


**FIGURE 4**

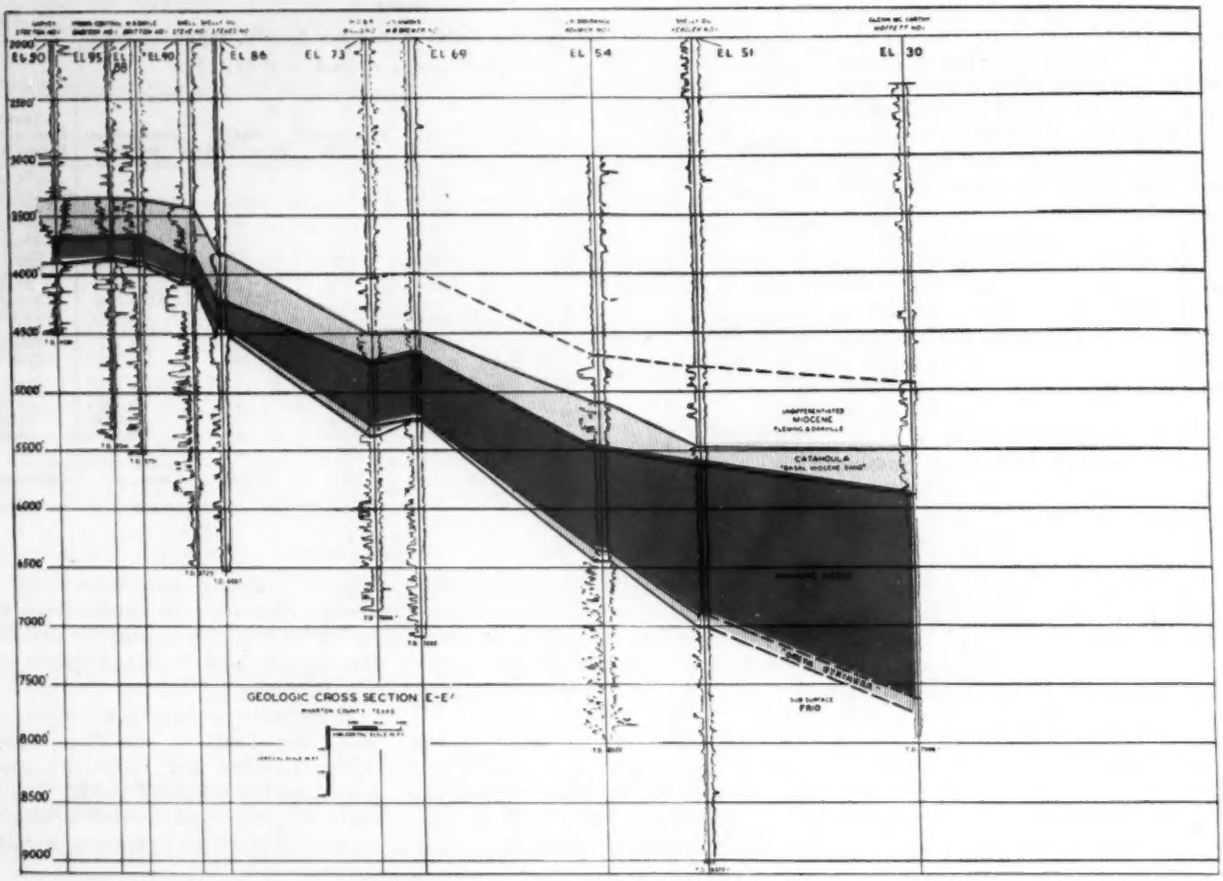


FIGURE 5

oil fields. It is equally true that many of the newer discoveries have only small sand sections, and 10 years ago could hardly have been produced profitably. Greater skill in petroleum technology and in handling mechanical completion problems have enhanced the value of thin sands previously not considered commercially productive. With growing increase in the need for oil it is hoped the accompanying map, cross sections and data of Jackson County, Texas, will stimulate and assist in the search for oil in this direction.

The writer wishes to acknowledge his appreciation for the helpful cooperation of many of the companies and operators in the Jackson County area, and Paul Weaver and Pierre Bayle in assisting in compiling the map, cross sections and other data.

THE GEOLOGIC SECTION OF WELLS DRILLED IN JACKSON COUNTY, TEXAS & VICINITY

| AGE | GROUP | SURFACE | SUBSURFACE & LITHOLOGY | GUIDE FOSSILS |
|---|---|---|---|---|
| PLEISTOCENE | Houston | Beaumont | Beaumont (clay) | |
| | | Lissie | Lissie (sand) | |
| PLIOCENE | Citronelle | Willis | Willis (sand) | |
| MIOCENE | | Fleming | Fleming (clay) | Potamides matsoni |
| | | Oakville | Oakville (sand) | |
| OLIGOCENE | Gueydan | Gueydan | Gueydan: Catahoula (sand); Anahuac (shale); Frio (sand) | Discorbis; Heterostegina (Het); Marginulina idiomorpha (Marg); Marginulina vaginata; Marginulina howei; Nodosaria blanpiedi; Textularia warreni |
| | Vicksburg | Frio | Vicksburg (shale) | Marginulina cocoaensis; Massalina pratti; Textularia hockleyensis; Textularia dibollensis; Camerina moodybranchensis; Nonionella cockfieldensis; Discorbis yeguaensis; Eponides yeguaensis; Ceratobulimina eximia |
| EOCENE | Jackson | Jackson | Jackson (shale) | |
| | Claiborne | Yegua | Cockfield (sand) | |
| | | Cook Mountain | Crockett (clay) | |

FIGURE 6

# 13,490' down-

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| VICTORIA, TEXAS | TYLER, TEXAS | LAKE CHARLES, LA. | CASPER, WYOMING | AVENAL, CALIF. |

# International Aspects of The American Petroleum Industry

By JOSEPH E. POGUE, Vice President, The Chase National Bank

*Before 41st Annual Meeting of the National Petroleum Association, New York City, September 21, 1943*

THE war has brought about important changes in the petroleum situation and through its stimulating effect upon demand, on the one hand, and its retarding effect on field developments, on the other, has created an entirely new relationship between prospective supply and demand. The record of the petroleum war economy is being written in two chapters, the first of which is nearly completed. The events of chapter one were primarily concerned with the far-reaching transportation dislocations created by the submarine campaign. During the first eighteen months of the war the major problems involved the establishment of transportation detours to meet essential requirements with minimum utilization of tankers, and the elimination of all dispensable consumption to ease the load. The shrinkage in tanker availability had to be countered by the development of extraordinary methods of transport overland and the taking of ocean-borne supplies from the nearest sources.

***In the face of demand such as now in prospect, there are but four ways to avoid wasteful production:***

1. **Further reduction in civilian consumption, which might impair domestic economy.**
2. **Higher prices or tax abatement measures to stimulate discovery and producibility.**
3. **Adjustment of military and lease-lend requirements in the light of new conditions.**
4. **Allocation of demand to available sources of supply can be put on a world basis.**

### Second Chapter

The second chapter in our current oil economy is introduced by a radical improvement in transportation capacity, as a result of the completion of extensive pipeline facilities and the favorable crossing of the curves of tanker construction and tanker sinkings. The breaking of transportation bottlenecks simultaneously on land and sea has fundamentally altered the economic and administrative problems of the oil industry and brings to the fore the elements of supply heretofore hidden behind transport barriers. But the problems of supply were not only masked during the events of chapter one, they were actually latent so long as demand had not risen to the zone of productive capacities. Now, however, the convergence of the trends of supply and demand is creating a new set of problems just as our transportation limitations are eased.

Petroleum production in the United States has enjoyed a rising trend since the inception of the industry, but the basis of production—the discovery rate—has fluctuated in conformance with price, the trade cycle, the emergence of new techniques, and other factors. For several years the trend of discoveries has been downward (although some reversal is apparently in evidence in 1943), but whether the decline in the discovery rate is a cyclical manifestation or else a subnormal level of discoveries will continue as a permanent condition is indeterminate, although the latter is perhaps the prevailing view. At the same time the demand for domestic crude oil, augmented by enormous military requirements, has been expanding sharply and against this trend our domestic oil fields cannot long meet the full requirements without strain.

When the producibility of the domestic oil reserve is examined in terms of rising requirements, it is found that a limitation is rapidly being approached. The Economics Committee of the Petroleum Industry War Council, in its July report, gave the results of a detailed study in these terms: ". . . for 1944 and 1945 the oil fields of the United States should not be counted on to produce *without waste* (italics, author) more than 4,200,000 to 4,300,000 barrels of crude oil per day . . ." Domestic production, which understates demand because crude oil stocks are being drawn upon, crossed 4,200,000 barrels per day in August, so that the estimated zone of maximum efficient production for American oil fields has already been invaded.

Production experience over the past 15 years has thoroughly established the principle that if production in any field is allowed to exceed a certain level called the optimum, or maximum efficient rate, there is both a loss in ultimate recovery and a subsequent decline in producibility, perhaps on the average to the extent of 25 percent. Production in excess of the maximum efficient rate for the country at large should be avoided if possible and resorted to only in case of sheer necessity. In the face of a demand such as now in prospect, there are only four ways in which wasteful production can be avoided. First, civilian consumption might be restricted in further degree, but aside from more effective enforcement of gasoline rationing there is little slack to take up on this score without encountering the danger of impairing the domestic economy. Second, higher prices or tax abatement measures could stimulate discovery and producibility, but there has been long delay in invoking these developments. Third, military and lend-lease demands might be reappraised in the light of the new conditions and adjustments may be possible in this field. Fourth, the allocation of demand to available sources of supply could be placed on a world basis and a more efficient flow-pattern developed and induced by the development of facilities appropriate to this end. Gain can doubtless be made in all four categories, but an effective safeguard against wasteful production and unnecessary depletion of the domestic resource requires a world basis for supply.

Fortunately the importance of a bal-

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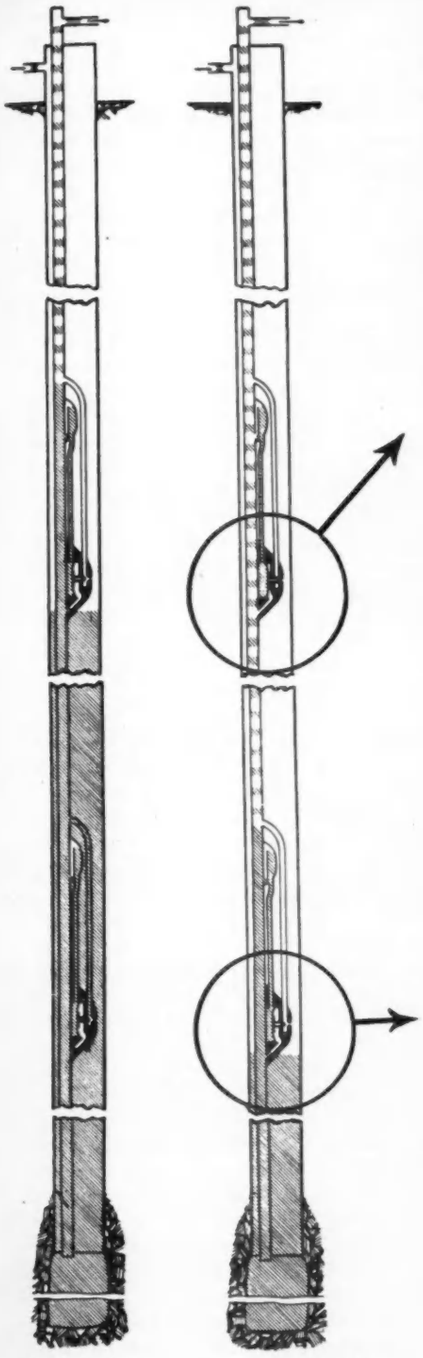

FIGURE 44-20
Well after gas has forced fluid level below first valve. This valve, uncovered and in operation, continues injecting gas until aerated column from a lower valve reaches it and it automatically closes.

FIGURE 44-21
Well shortly after fluid level has uncovered lower valve. With the McEvoy Self-Operating open flow valve installation, the submerged valve nearest the fluid level flows the well—giving greatest volume of fluid with minimum gas.

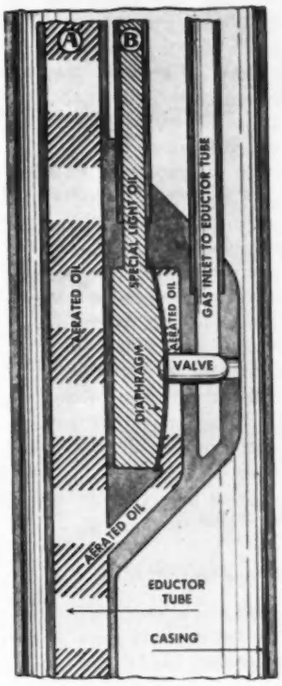


FIGURE 44-23
Schematic diagram of valve in closed positon.

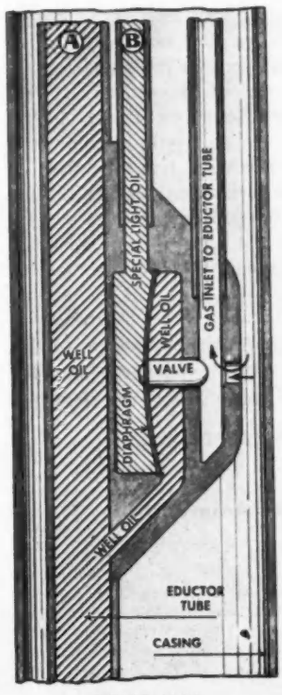


FIGURE 44-24
Schematic diagram of valve in open position.

### CONSTRUCTION AND OPERATION OF OPEN FLOW VALVE

*Hydrostatic pressures exerted by Columns A and B act on opposite sides of the diaphragm* which, in turn, control the operation of the gas valve. It is important to understand that the hydrostatic pressure of the fluid in the eductor tube is common to both sides of the diaphragm (see drawings on preceding page). Hydrostatic pressures in the eductor tube vary (depending upon the presence and volume of gas), but since the special light oil contained in tube B remains constant, pressure differentials are thereby created which are made to automatically open and close the valve.

### ACTION OF VALVE WHEN FLOWING WELL OIL

When the valve is flowing (see Figure 44-24), pressure is greater on the front face of the diaphragm, opening the valve which allows oil or gas to enter the eductor tube. The reason for this greater pressure on the front face of the diaphragm is: First, the well oil exerts a force through the separator chamber to the top of the oil tube containing 16 feet of special light oil, thence to the back face of the diaphragm. Second, it (well oil) also enters against the opposite or front face of the diaphragm through a port. But due to the fact that the combined hydrostatic pressure of the well oil and the special light oil bearing on the back face of the diaphragm will be less than the force of the well oil alone on the front face (due to the lower specific gravity of the special oil), the diaphragm will be moved inwardly, opening the valve, allowing oil or gas to enter and lift oil to the surface.

### ACTION OF VALVE WHEN NEXT LOWER VALVE IS UNCOVERED

When a lower valve is uncovered, the pressure becomes greater on the back face of the diaphragm of the upper valve which causes it to close. The reason that pressure on the back face of the upper valve has become greater is that the pressure bearing on the front face is no longer solid well oil; an aerated column coming up from the lower valve is responsible. The hydrostatic force of the 16 ft. column of special oil in the "oil tube" B acting on the back face and opposed by relatively lighter aerated fluid, now moves the diaphragm outwardly to close the valve.

The gas valve is designed to seal against 1200 pounds per square inch differential pressure. As a result, leakage or wasting of gas through the valve is completely eliminated under all ordinary input casing pressures.

*The diaphragm* is made of long lived synthetic rubber and has lasted the equivalent of twenty years normal operation in actual fatigue and destruction tests.

*Sand traps,* screens and ball check valves prevent the deposition of silt or sand at vital points.

*Full opening* through valve permits running of bottom hole pressure bombs, paraffin knives or other instruments into the well.

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HOUSTON, TEXAS

When peace returns, the oil industry will demand advanced tools . . . McEVOY WILL HAVE THEM

anced world program for the production, refining, and shipment of oil is fully appreciated in many quarters and the techniques are available for its implementation. What is needed is a more balanced allocation of world demand to all available sources of supply. It is believed that a fully integrated effort along the lines indicated above can obviate the undue impairment of the domestic oil resource. It is to the interest of both the war effort and the domestic economy that this be done, and the improving tanker situation makes this possible.

### Caribbean Sources

It is well known that the reserves and producibility of oil in the Middle East and in the Caribbean Region are much greater than now utilized. Reserves in the two areas combined are larger than in the United States, while producibility from existing wells is several hundred thousand barrels per day in excess of recent takings. True, the limitation in both areas is refining capacity and to some degree pipeline transportation, rather than producibility, but these bottlenecks can be broken by further installations, on the one hand, and a freer international movement of the oil, on the other. And producibility can be radically augmented by additional drilling.

Whatever the administrative disposition of the problem may be, the economics of the petroleum situation indicate that the oil resources of the Middle East and of the Caribbean Region will be drawn upon more fully for war purposes, and future increments to the military demand will be diverted more and more to these sources. In fact, this shift is already well under way. It is clear, therefore, that for the duration of the war the American petroleum industry has become indissolubly linked with foreign sources of supply and no major domestic oil problem can now be resolved except in the light of all foreign alternatives.

At the very core of all production thinking is the rate of production and particularly the best rate, all factors considered—that rate which has been termed the optimum, or maximum efficient rate. This is the most fertile concept, or discovery, that has emerged from our production experience and it is almost axiomatic that it is unsound to produce any oil field in excess of its optimum rate. It is also important to understand that a field may be soundly produced below its optimum, if economic conditions require. The application of the optimum rate, therefore, is not symmetrical in an administrative or economic sense. The economic cost of exceeding the optimum is much greater than that of falling short of it—the first having social implications, the second merely delayed monetary realization. We may therefore set forth the following principle which is thoroughly grounded in established practice and in conservation policies as followed by the State regulatory bodies and the Interstate Oil Compact Commission; namely, the oil fields of the United States should not normally be produced in excess of their aggregate optimum rate nor should they be operated below their optimum rate except to avoid overproduction.

At any given time the optimum rate of crude oil production in the United States must exceed, equal or be less than demand. In the first case, the pressure of supply will tend to create an excess of exports over imports; in the second case, the balance of trade in oil will approach zero; while in the third case, foreign oil will be required to fill the margin and this nation will become a net importer of petroleum. The domestic optimum rate, accordingly, will be the ultimate determinant of the position of this country in respect to imports and exports of oil. But whatever these relationships may turn out to be, the organizing and technical ability of the American petroleum industry should have a great role to play in the development of oil resources the world over.

### Post War

The industrial advancement of the world in the postwar period depends more upon transportation than upon any other single factor. No other instrumentality has had a more profound influence upon the world order. Transportation is a stimulant of production and in its presence natural resources and technology combine to create useful commodities. But transportation is not a static concept; it is itself undergoing change. The type of transportation that accompanied and supported industrial developments in the past will have altered and become automotive transportation in the era of reconstruction and expansion that will characterize the postwar period. This change in the form of transportation has been so long under way and its future implications are so obvious as to require no further elaboration here. Petroleum is essential to support the development of the transportation facilities necessary to create rising standards of living based upon expanding production and trade. In this light, petroleum and the industrial structure through which this resource functions take on a pivotal character of the first importance. It is scarcely too strong an assertion that the future of the postwar world is dependent upon the disposition made of petroleum as an economic and social force.

The petroleum industry has developed techniques and operating patterns which will prove invaluable in postwar expansion throughout the world. In addition, it has demonstrated a peculiar genius, derived no doubt from the pioneering aspects of the industry, which is difficult to describe and to make clear to anyone who has not lived with this subtle element. It is this genius that has been instrumental in discovering nearly all the oil found in the entire world outside of Russia, and its techniques have been contributory to developments there. It is this genius that has in the past ten years developed in the United States, against almost impossible legalistic odds, a system of efficient production reconciling competition with the advantages of cooperation in oil pools of divided ownership, adapting for this purpose a workable form of collaboration between the individual operators and the oil-producing states—thus revolutionizing engineering practices, equities, and political-economy in our oil fields. And it is this genius that has facilitated the development during the war period of a system of dual planning and management whereby Government and industry are collaborating in the task of directing the complex pattern of petroleum operations to war objectives. These experiences, together with its command of technology, not only fit this industry for participation in the execution of postwar international oil policies but make it essential that its understanding be drawn upon in the formative period of thinking and planning toward those ends.

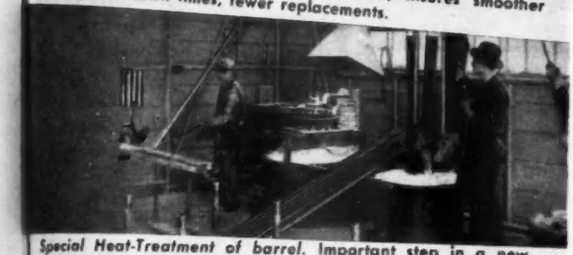
The problem of postwar world reconstruction cannot proceed along sound economic lines without the establishment of petroleum in a role consistent with its importance. For this purpose it is necessary that the United States formulate a foreign oil policy that will at the same time serve the interests of our country and further the productive capacity and volume of trade of foreign countries. Such a policy should be friendly to American enterprise, which has demonstrated its ability in oil developments the world over, and should have the objective of making foreign oil activities commercially attractive so as to create a dynamic urge toward further progress. To these ends our nationals will need freedom from burdensome operating controls, stability of contracts, and parity with all competitors. If these conditions are provided by international understanding, this country and its petroleum industry can make an oustanding contribution to the future stability and well-being of the entire world.

### *Oil Is Ammunition*

It takes four barrels of crude oil to make one barrel of 100-octane aviation gasoline, and less than two barrels of crude oil to make one barrel of ordinary commercial motor gasoline. In order to have sufficient oil for the running of the war and a diminished civilian supply, it will be necessary for one major oil field (one that will produce 30 million barrels) to be discovered each week, as it will require 30 million barrels to supply requirements of the United States war and civilian economy for one week.—WRIGHT D. PATMAN, *member of House of Representatives from Texas.*

# MAINTAIN *Pumping Efficiency* with FLUPACOS

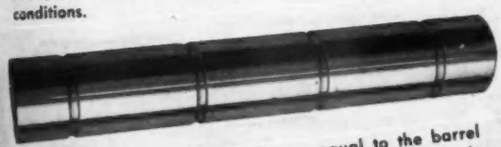
*One-piece alloy steel barrel.* Reduces bulk, insures smoother pumping, less down times, fewer replacements.



*Special Heat-Treatment of barrel.* Important step in a new process results in barrels that give 2 to 5 times ordinary wear.

*Precision aligned barrel.* Maintains perfect alignment, eliminates plunger bind, reduces pump wear.

*Mirror-finish precision honing of barrel wearing surfaces.* Provides smooth, effortless plunger operation under all conditions.



*Hard-metal plungers.* Metal plungers equal to the barrel in abrasion and corrosion-resisting qualities result in minimum friction and wear.

*Uniformity of standards and measurements.* Barrels, plungers, fittings, even the elements used in making them, require precision measuring instruments for control of every detail in pump design and construction.

**While the war has placed added obligations on the oil industry and reduced available materials, sound practices in oil well pumping have not been materially affected. Instead, even greater emphasis has been placed on (1) correct pump design and (2) proper pump selection, care during use, and proper maintenance to extend operating life.**

## Better Pumps From Less Steel

**Today, as the result of Fluid Packed Pump Company's long-range development program, oil producers can now secure *better* pumps, made of *less* steel, and still produce *more* oil for the war effort. These new Flupaco pumps are extremely simple and unusually long-wearing, yet they are so efficient that they outperform and undersell conventional types weighing up to four times as much. Some of the more important construction features of these Flupaco pumps include:**

## FLUPACO'S "PUMPING ANALYSIS"

- SAVES REPAIR TIME
- CUTS OPERATING COSTS
- INSURES LONGER LIFE

**Each individual well has its own basic requirements for efficient production. Such pumping factors as the right size of pump for each well...proper installation... pump fit and bore...recommended strokes and speeds...correct valve space and plunger fit... are of utmost importance. Consult Flupaco service men for a complete "pumping analysis". This "plus" service can be an invaluable aid in your wartime maintenance program.**

**Send for a copy of the free booklet "Efficient Oil Well Operation in Wartime".**

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**WORLD'S LARGEST EXCLUSIVE OIL WELL PUMP MANUFACTURERS**

# Preventing Pressure Leakage from Abandoned Wells

By F. R. COZZENS, Equity Oil and Gas Company

It takes money to induct an artificial force, air, gas, or water, into an oil-sand, and unless the greater part of that force can be utilized to increase production there is waste, not only of time and labor, but also of oil. Ample evidence is being turned up to prove that a lack of control of the driving force is very receptive to the formation of oil-traps, and to the deflection of oil into areas where it can not be recovered. Engineering skill now makes it comparatively easy to zone a sand so that driving force can be applied to productive areas. Force can likewise be increased or diminished to suit conditions, but the real test of efficiency and effectiveness of a secondary recovery project comes later, when the operator attempts to confine the force so that a required pressure can be built up and maintained. It is roughly estimated that anywhere between 10% and 70% of the force inducted into the average oil-sand is wasted, mainly through leakage into non-productive areas or into outer formations. We know that in every sand-body there are natural fissures and abrasions through which pressure can escape. We know also, that a far more common means of pressure escape is through man-made punctures; namely, drilled wells which have been salvaged and abandoned and only partially plugged. Considering the fact that an estimated 18,000 wells have thus been abandoned in twelve Ohio counties since the advent of the industry, and taking this as a typical example of other stripper field districts, we can readily understand why some secondary recovery operators have headaches and why many productive projects are entirely too expensive. Many of these old wells have remained open to the surface throughout the years, despite the common theory that a well, after casing has been removed naturally plugs itself through the caving in of soft formations. Other old wells are bridged at various depths. Some are filled, or partially filled with water; but unless an effective closure has been made at or near the sand-top, all such wells are a menace to secondary recovery operations. This source of pressure leakage has been studied seriously in the eastern stripper oil fields, especially since war conditions have required a closer check-up on labor and materials, and while no 'cure-all' for the problem has been found, several remedies are being put into action with very good results. In numerous tests, conducted over a wide range of territory, treatment of old wells has reduced pressure wastage 10% to 50%, and there have been substantial savings in labor and time.

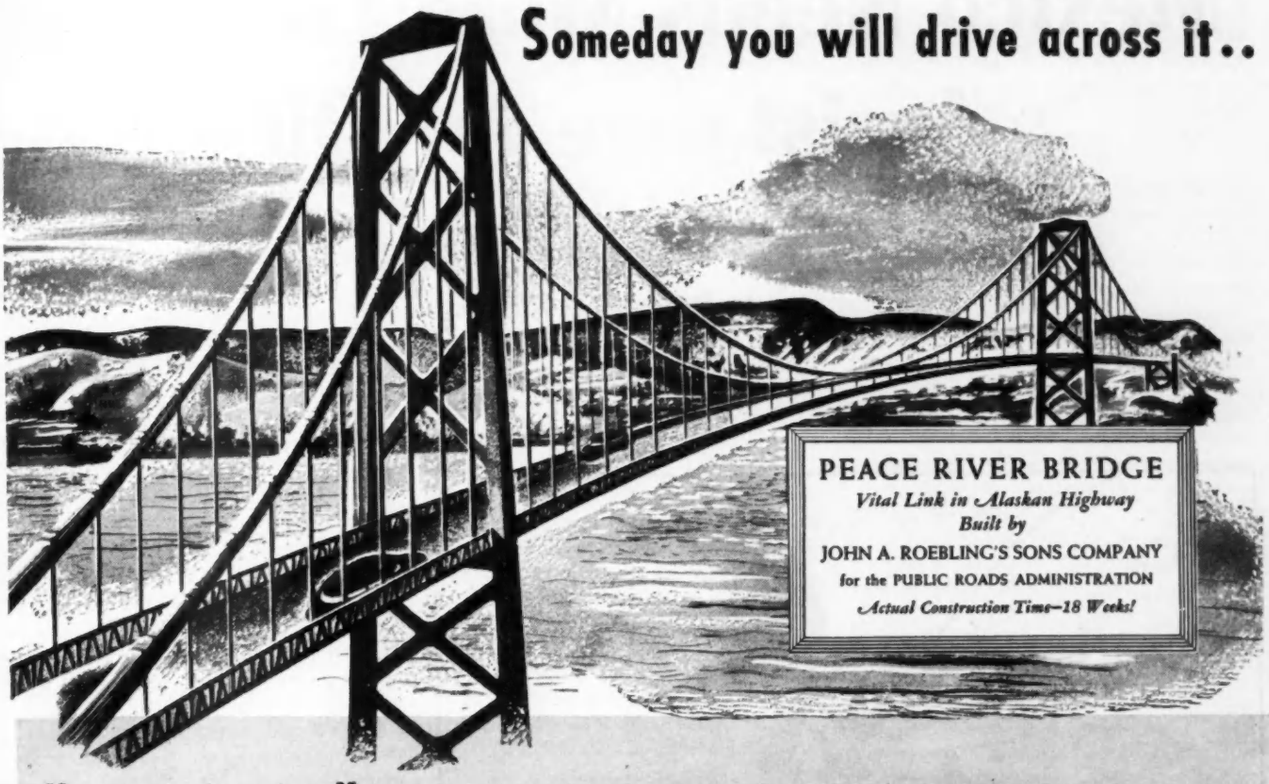
The main objective in the treatment of old wells is to effect a closure as near as possible to the top of the pay sand. In wells containing large quantities of water, the most favored method of making a sand closure is to induce caving by means of carbide or explosives. Certain portions, soft formations, along the walls of a well generally start to slough off, or cave immediately following the temporary removal of water. In the carbide treatment, 100 pounds of commercial carbide are usually needed for wells 1000 feet or less in depth, and to simplify handling, the carbide is broken into chunks, one or two inches in length. After the top of the hole has been cleared of debris, the broken-up carbide is shoveled in, due care being taken that the worker does not inhale the fumes, or have lights, except electric, or fires within the immediate area. Upon reaching water within the well, the carbide creates violent agitation through chemical action. Temperature of the water rises 20 to 40 degrees F., causing the water-level to rise several feet up along the walls of the hole. As agitation ceases, the water recedes, and a very favorable caving reaction is made upon the walls along which the water has stood. The heated water likewise encourages caving action. In most wells, 1 to 20 feet of cavings can be expected to fall in within a few hours, and this burden combined with the carbide-sludge which settles to the bottom, generally makes a pressure-tight seal. One treatment is usually sufficient, although in wells exceeding 1000 feet in depth and which contain water, one-half to two-thirds the length of the hole, more carbide is required, sometimes as much as 300 pounds.

In localities where formations favorable to caving are uncertain, many operators prefer to use explosives instead of carbide. For this treatment, the well is first measured with a steel line to ascertain the distance to a formation favorable for caving. To this depth and location is lowered a torpedo shell or other metal container, which has been loaded with dynamite, preferably of the Gelatin type, twenty-five to thirty-five pounds being the usual amount for the average well. Firing is generally done through an electric blasting cap, No. 6 or larger, which is inserted in the pack of explosives, the cap being attached to a copper wire line, insulated, leading to blasting machine or battery. All exposed connections are wrapped with waterproofed tape. Caving of the formation invariably follows the blast, and agitation of the water causes the process to continue until a satisfactory sand-closure is made. Small amounts of dynamite, 10 to 15 pounds, also prove useful for knocking out bridges in old wells, allowing the operator to reach and treat formations nearer to the pay-sand.

Certain abandoned wells have remained open from shot-hole to surface throughout the years, yet never have filled with water. In such cases, sand-closures are being made successfully by plugging at the sand-shoulder with Gel-type cement, or the insertion of wooden plugs which are backed up with cement and sand. Filler materials are being used with good results in many localities. One such material is made by mixing common clay, screened, with sufficient water to form a paste. This mixture, called 'batter' is poured down the hole until the column is built up, three to five feet above the top of the sand. Some operators stir a bushel or more of dry wheat into the batter, and three to five barrels of the material are required for an average well. Favorable work along this line is also being done with caulking compounds and commercial plugging materials.

By these and similar methods, abandoned wells, in the big majority of cases are being sealed without using restricted materials, and it is seldom necessary to place any equipment over the holes. The work should be done before any type of artificial force is inducted, and many eastern operators are now making it a rule to attend to this matter before secondary oil recovery measures are started. In practically every district where well closing has been done there are fewer pressuring troubles, less overhead expense, and consequently, lower cost of producing oil.

# Someday you will drive across it..


PEACE RIVER BRIDGE
Vital Link in Alaskan Highway
Built by
JOHN A. ROEBLING'S SONS COMPANY
for the PUBLIC ROADS ADMINISTRATION
Actual Construction Time—18 Weeks!

## You're going to see the Yukon!

YOU BREAKFASTED in Dawson Creek, and now your car hums along the smooth Alaskan Highway, through the wide, pine-studded country of British Columbia. Around a curve, and suddenly, before you stretches the valley of the Peace River, spanned by one of man's most beautiful works . . . the suspension bridge. "Here's a bridge," you'll say to the family, "that helped to win the war."

You may stop a moment beside the bridge's approach, to tell them more about it. "That's a lot of river," you may say. "Two thousand feet wide, running 8 miles an hour! And here in the wilderness, a great bridge . . ."

"How ever did they get it here?" your wife asks, ever practical. "Well," you say, "they trucked it here,—100 freight car loads of material and equipment—not in balmy summer weather either. It was in the winter and spring of 1943. Bitter cold, snowing, blowing . . ." And before it reached Dawson Creek lay the urgent, anxious period of design, details, orders, priorities, manufacture and shipment, all compressed into the unbelievably short time of 18 weeks, an achievement made possible by the most complete co-operation between Roebling and the U. S. Public Roads Administration with the timely assistance of the U. S. Engineers when special priorities were required.

"There wasn't much here when the men arrived. Roebling carpenters built weather-tight shacks for the men. Roebling men cut wood for Roebling cooks who kept their stoves heated red. Disease struck, and at one time eighty men were down. From Trenton, medicine was packed, and flown by plane . . ."

"Was the river frozen?" Johnny queries.

"It was frozen fifty-four inches thick. 4½ feet of ice. So they used the ice—built their construction tower on it. Because it was the fastest way. But they gambled, for they knew the ice would thaw. The break-up would come in March. *Ice unsafe after March 15 and almost certain to be dangerous by April 1.* That was the report.

"They raised one bridge tower, then skidded their 100-ton construction tower across the ice to raise the other one. Just like a sled. They had to hurry. But they won.

"After the break-up, the bridge towers stood safely pointing to the sky. They needed motorboats, but there were none. They built them. The 'John A. Roebling' and the 'Washington Roebling,' named for America's bridge-building pioneers, helped the Army ferry as they worked to build the bridge. One operation followed another in rapid succession as Roebling, working hand in hand with P. R. A. field men maintained the tempo and rushed the bridge to completion."

"This bridge was so vital," you continue, "that as soon as the cables were spun across, they carried a gasoline pipe-line over on them. Trucks shuttled to one end of it, and from the other end toward the Alaska-based bombers and fighters,—and Tokyo . . ."

You swing your car onto the bridge and purr along, a hundred feet above the swift Peace River. "They finished it in record time. In August, 1943 . . ."

*"Surpassing their 100 year record as bridge builders, Roebling has done a magnificent job at Peace River," says Commissioner Thomas H. McDonald of U. S. Public Roads Administration. "Construction is complete . . . 7½ months after the contract's signing . . . 18 weeks after the setting of the first piece of steel . . . cutting in half the best previous construction time!"*

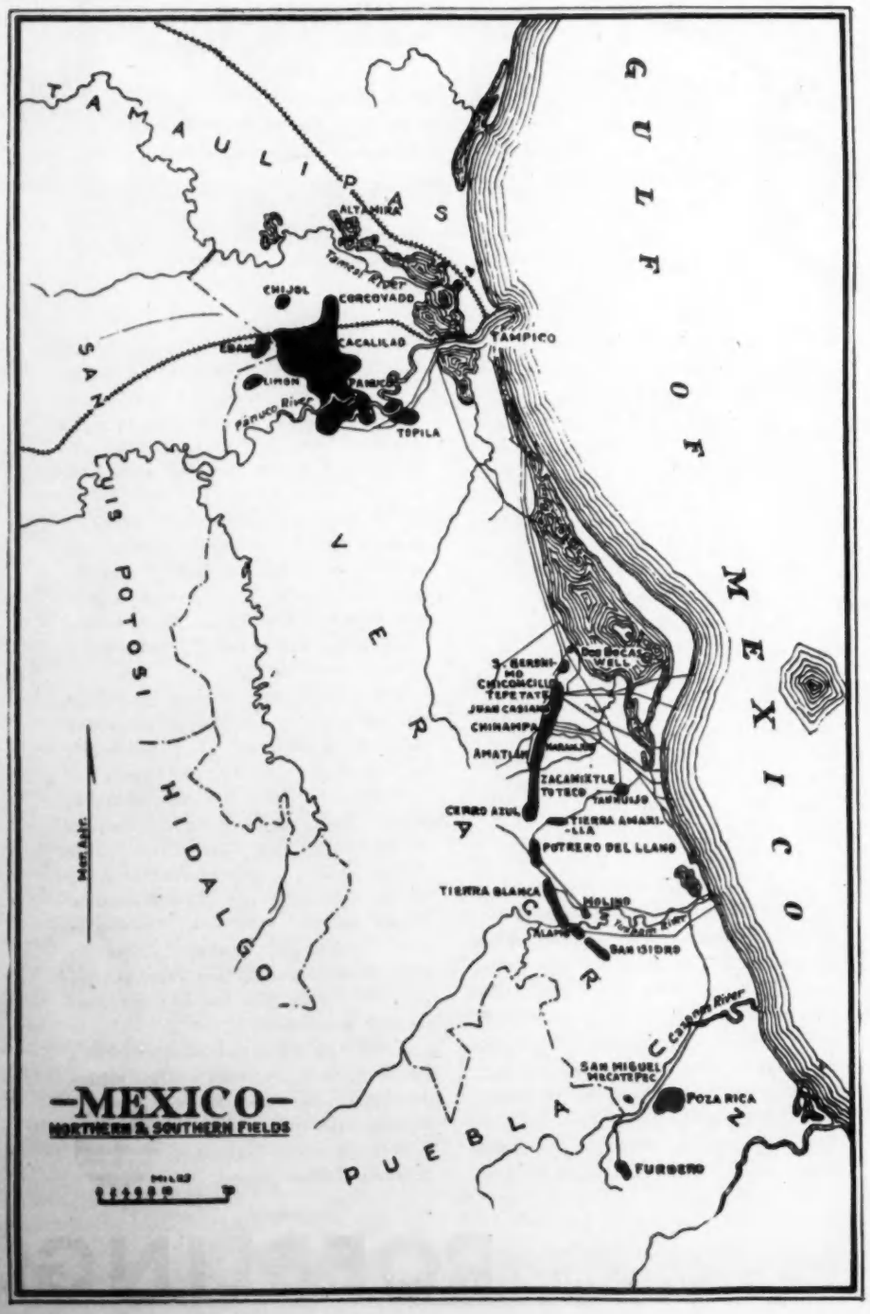
If you would like to read more of this Roebling saga, and own a color reproduction of the Peace River Bridge, write today. John A. Roebling's Sons Company, Trenton 2, New Jersey.

Bridge Builder . . . Pacemaker in Wire Products **ROEBLING**

# Mexico Needs More Financial Assistance for Oil

**Loan from United States already arranged will be used for refinery and pipe line work, but what the country needs is more oil field discoveries**

By L. J. LOGAN, Associate Editor




DESPITE the credits arranged for the Mexican government oil company, Petroleos Mexicanos (Pemex), by the Reconstruction Finance Corporation last May, additional assistance probably will have to be given if there is to be any fundamental building up of the Mexican petroleum industry. The loans arranged at that time involved $15,000,000, and will cover construction of a modern refinery at Mexico City for manufacture of 5,000 barrels daily of high-octane gasoline, reconditioning of a pipe line from the Poza Rica field to Mexico City, and purchase of machinery and equipment badly needed in several oil districts, especially at Poza Rica field.

However, Mexico is suffering seriously from the lack of new fields, following a long period in which comparatively little wildcatting has been done; and producing ability has been steadily declining, although the trend of actual production, down sharply after the first several months of 1942 but gradually upward since the latter part of 1942, has indicated the loss of foreign markets and reduction of tanker capacity rather than taxing of the ability to produce. Prior to the commencement of the submarine warfare in the western Atlantic, Mexico was producing in early 1942 around 140,000 barrels of crude per day, but from that normal output, there was a decline to about 70,000 daily in late 1942, from which level there has been a recovery this year to more than 90,000 barrels per day currently. If markets were available, therefore, Mexico could, by boosting output back around the levels of early 1942, turn out about 50,000 barrels per day more than the country at present is doing.

The ability to step production back up is based primarily on the Poza Rica field, which now is averaging around 60,000 barrels daily or two thirds of the country's total. Production outside Poza Rica thus is about 30,000 barrels daily,

but those other fields have but little surplus producing ability.

Any real revival of the Mexican oil industry, therefore, aside from drawing more heavily on the leading field, awaits the development of new sources of supply, which may be a slow process; although a single major strike, like some of those made in Mexico in the past, might shoot producing ability up greatly.

Without the finding of new fields, Mexico will not be able to take as important a role as it otherwise would be capable of, in the lately mapped out program through which larger supplies of oil will be drawn upon from the Latin American countries, to supplement those from the United States in meeting the rapidly growing war requirements of the United Nations. The immediate plans call for drawing mainly on the Caribbean region, including Venezuela, Colombia, and Trinidad, for the sharply stepped up production that is desired.

### Difficulty Securing Drilling Equipment

Since the expropriation of the oil properties in Mexico in 1938, there has been difficulty in obtaining equipment for drilling as well as for other phases of the oil industry's operations. However, there has been some easing of this difficulty during the past two years through the action of the United States in conceding priorities that have permitted Petroleos Mexicanos to obtain substantial amounts of equipment for operation and maintenance; and the financial assistance given several months ago will further improve the situation.

In the past 5 years, the government company has been able through this assistance to drill 91 wells in various parts of the country up to the middle of this year. Among them, 54 produced oil.

### Drilling in Proven Fields

However, the drilling has been confined mostly to the proven fields. From the expropriation to the end of 1942, only 3 wildcats had been completed in Mexico, although at that time, 3 more were currently drilling, while 2 others were scheduled to start.

This wildcatting was almost negligible, in relation to the established reserves and in relation to the promising areas available to drill. If Mexico would drill only half as many wildcats as the United States has been doing, on the basis of reserves, it would be drilling 50 to 100 wildcats per year, it has been calculated. The country's present oil reserves are estimated conservatively at 750,000,000 barrels, according to a report recently given out by Efrain Buenrostro, general manager of Petroleos Mexicanos.

The company's program for 1943, according to the report, calls for 54 new drilling operations and exploratory work not only in "recognition" zones but also in new regions, such as that west of Faja de Oro, Chicontepec, and south of Poza Rica to the eastern Sierra Madre and in Tabasco. In addition, exploratory work is planned along the Pacific Coast of Lower California, Sonora, and Sinaloa, and in Northeastern Mexico in the states of Nuevo Leon and Tamaulipas.

### Production Dropped Sharply During 1932

As compared with the production of 41,160,000 barrels of crude oil in Mexico in 1941 (113,000 daily), the output dropped sharply in 1942 to 32,955,000 barrels (90,000 daily), according to Buenrostro's report. Mexico's domestic consumption of petroleum has been around 24,000,000 barrels per year, or 66,000 barrels daily. Indicated exports in 1942 were, therefore, about 9,000,000 barrels, although they were heavy in the first few months and down greatly thereafter.

### More Refineries Than Oil

The present refining capacity in Mexico is two thirds greater than the country's crude oil production and more than double domestic consumption, based on the report's figure of 150,000 barrels a day. The plant capacity has been increased to that amount from 120,000 daily in 1938, it is stated. This new capacity has been added besides maintaining the condition of previously installed equipment.

New cracking towers have been installed in various refineries. The obsolete asphalt plant a Ciudad Madero has been replaced by a modern one. An old gasoline treating plant at Ciudad Madera has been adapted to obtain a high-octane product. Two new heaters of 10,000 barrels capacity each have been installed at the Minatitlan refinery, in replacement of 10 obsolete heaters, and 3 modern boilers have been acquired at the same plant to replace boilers in operation over 30 years. There has been new construction at Bella Vista to increase refining capacity, based on plans prepared by Pemex experts. Also, Mexican technicians planned and constructed a plant to produce tetra-ethyl fluid.

### Plan Modernization

Plans for the Mexican industry call for placing it on a par with that in the most advanced producing and refining nations. Refineries are to be modernized and concentrated, to be in position to meet both internal and foreign demands; and equipment is to be acquired, according to plans, to obtain valuable by-products that can not be made with present equipment.

Pipe-line facilities have been increased in capacity by 135,000 barrels daily, according to the report. Capacity of the Poza Rica-Azcapotzalco pipe line has been increased from 15,000 to 22,500 barrels daily, the Poza Rica-Tuxpan pipe line from 20,000 to 125,000 barrels daily, and the Poza Rica-Tampico line from 40,000 to 63,000 barrels per day. Plans call for further stepping up the Poza Rica-Azcapotzalco pipe line to 37,500 barrels daily.

Tank cars currently in use number 1410, according to the report, compared with 771 at the time of the expropriation. The government company has 530 tank trucks now, compared with 458 in 1938.

Capacity for storage of oils in Mexico has been increased in the meantime from 1,397,169 to 1,725,786 barrels, while there has been a general program of centralization.

Of major importance in the distribution of Mexican oil products is the marine plant built by the company at Salina Cruz, as it is needed for making shipments to the Pacific Coast.

### Water Transport

Present water transportation tonnage held by Pemex or its subsidiaries totals 93,966 tons, and in addition, it has 53,256 tons of shipping placed at its disposal by the Mexican federal government. These figures compare with 17,542 tons of total water transportation shipping held at the time of the expropriation. Three tankers aggregating 31,500 tons which were purchased from Italy and paid for, have not been received because of the war.

### Export Sales Down

Petroleum sales within Mexico in 1942 had a value of 254,000,000 pesos, compared with sales 156,000,000 pesos in 1937. Export sales in 1942 amounted to $7,378,000, compared with $16,000,000 in 1940 and $8,984,000 in 1938.

Pemex currently is up to date in meeting its financial obligations, according to the report, and is paying all federal and other government taxes promptly. All current accounts, at home and abroad, have been paid in full, and to meet future commitments, the company has on hand approximately 38,000,000 pesos.

When the industry was expropriated, Pemex lacked capital for operating on the greatly increased scale that became necessary. But government assistance has enabled the company to carry on its operations, and investments valued at 145,495,814 pesos were made. Of this sum, the government furnished 60,000,000 pesos, and Pemex supplied the rest out of income from its operations.

Working conditions of the employes of the government oil company are among the best in Mexico, the report stated.

# PRACTICAL OPERATING *Hints* FOR THE DRILLING RIG

*$5.00 will be paid for each illustrated acceptable contribution. Mail to The Editor,* THE OIL WEEKLY, *Houston.*

### 1. PITMAN HANDLING

## Block Retainer and Hook Speed Shifts

TO SPEED up drilling operations and facilities the handling of the pitman on their standard-end units, one company has incorporated two ideas. Before running the bailer at the end of each drilling screw following removal of the bit from the hole, the pitman must be pulled off the crank pin then dragged ahead along the pipe walk in order to raise the well end of the walking beam away from the center of the hole.

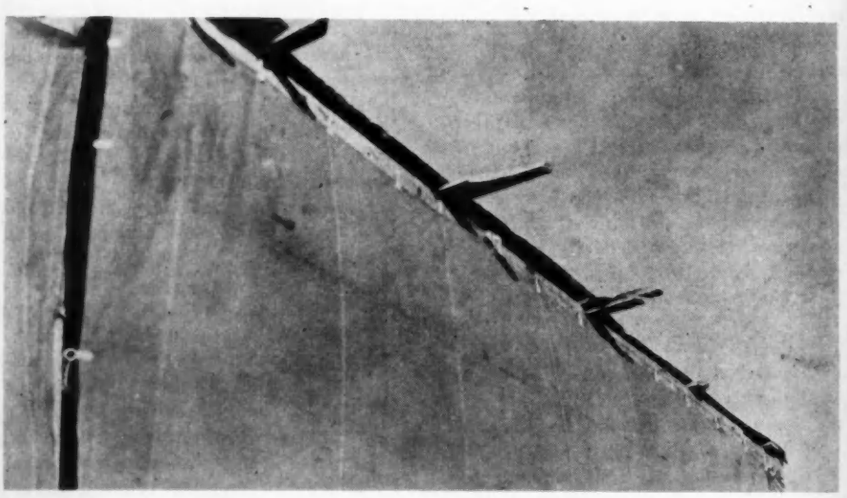
To prevent the block bearing from falling down in its guide when the pitman is pulled off the crank pin, a short length of old inner tube was fastened to the two parts. This holds the block in its upper position at all times and makes it easier for only one man to hold the pitman out and slip it on to the pin as the driller slowly applies the power to bring the crank pin up in position.

The other feature, as shown in the photograph, is a safety measure in the form of a counterweighted line which is used to hold the pitman back and prevent its creeping, which in turn would allow the walking beam to fall over the well opening and possibly foul the sand line. Each time the pitman is taken off and pulled back the sucker-rod material hook is hooked into the eyebolt on the pitman, thus holding it steady until released.

**Elastic retainer insures full opening for pin, while counterweighted line prevents pitman creep during sand-line run.**

### 2. PROTECTION

## Canvas Windbreaks On Harness Snaps



**By equipping the windbreak edges with quick opening devices, much time is saved over former method of reeving line through grommets and around supporting wire line on derrick framing.**

INSTEAD of the usual grommets in the edges of canvas windbreaks around the rig floor, one company uses heavy harness snaps, attached with heavy stitches which also pass around the ¼-inch bolt rope.

This method of fastening, where the hooks are simply snapped over a wire line stretched adjacent to the opening, permits quick shifting of the canvas when desired, and eliminates the time required for reeving a line to be used with the usual row of nails. It also permits even distribution of strain on the material, as the hooks may be spaced as closely as desired, and may be so arranged as to slide freely along the supporting wire, the hook at the end being used over a separate attachment to provide closure.

### 3. FEED-WATER

## Boiler Barrel Subs As Heating Medium

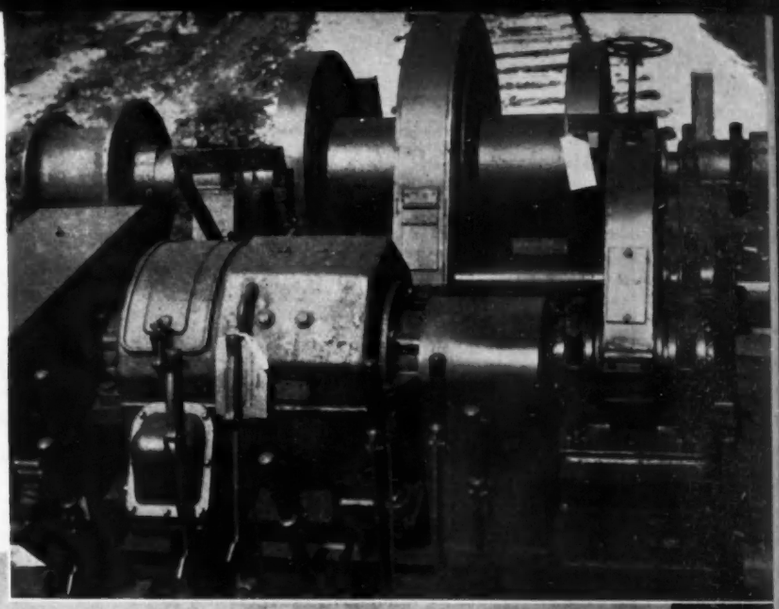
THE barrel of an oil-field boiler, no longer able to sustain high pressures, was reworked by the owner to form an effective feed-water heater which not only brought the incoming stream of water to a temperature just below the boiling point, but which also condensed much of the exhaust steam from the power units and thus returned the condensate to the hot well for re-use.

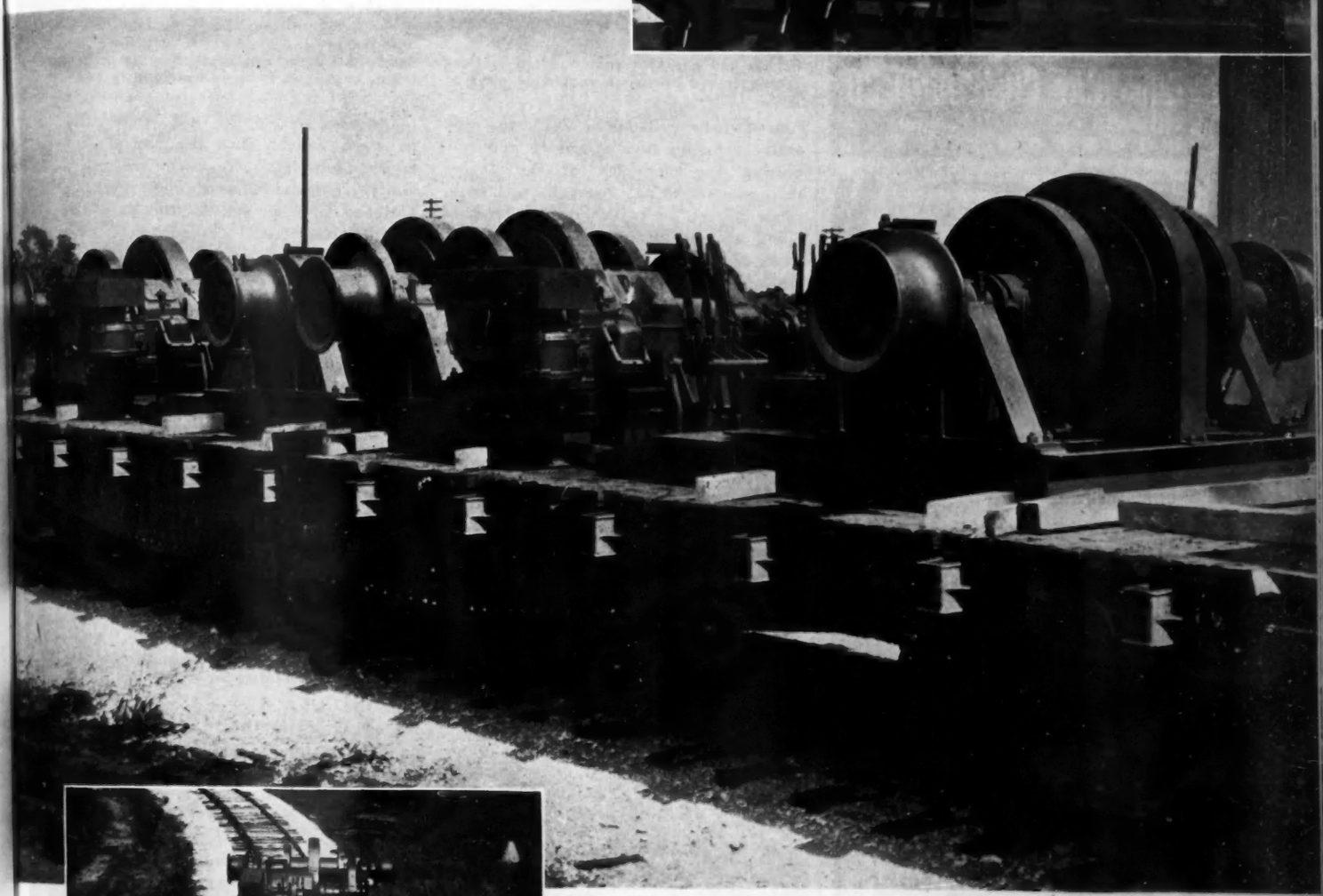
The firebox and smokebox ends were cut from the barrel, leaving metal enough so flanged ends might be placed to afford circulation space around the ends of the tubes. Flow of the exhaust steam is through the end spaces and tubes, while the feed water is circulated around the tubes in the space normally occupied by water and steam in former service.

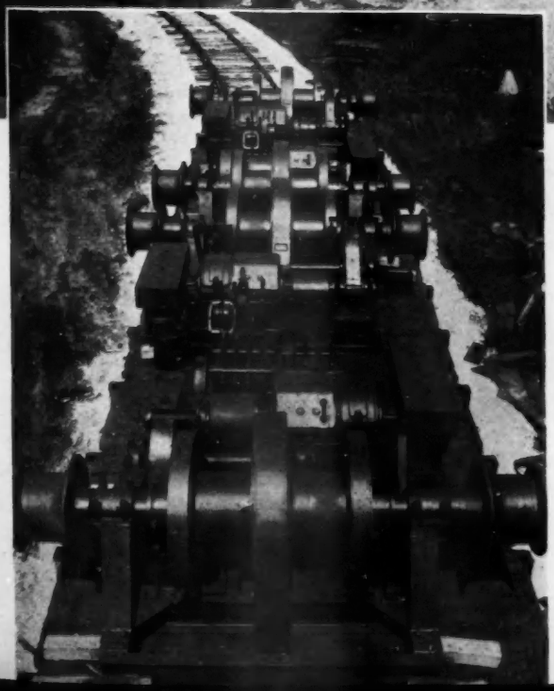
The exhaust steam is brought into the unit through a grease trap and scrubber, to prevent the deposition of a

# WINCHES FOR WAR

*by* **HUNT**







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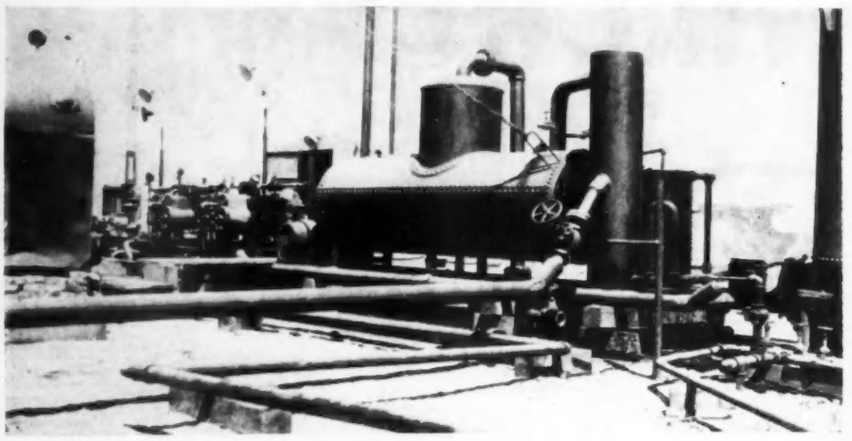

**Firebox and smokebox ends replaced by flanged heads, this boiler tube section serves as heat exchanger and condenser, reclaiming much of the heat and water formerly wasted as exhaust.**

film of steam cylinder oil inside the tube walls, reducing heat transfer and impairing the efficiency of the device through requiring frequent cleaning. Scale prevention within the water-carrying area is attained by treating the make-up water before it is pumped through the heater.

### 4. SAFETY

## Shaft End Cover Prevents Injuries

WHEN the extension shaft on the sand-line reel or auxiliary drawworks is not in use, the stub of shaft projecting beyond the end of the housing presents an accident hazard through the possibility of clothing becoming caught by the keyway and an employe drawn into or injured by the shaft.

To guard against accident at this point, a guard may be slipped over the shaft end, one type of device being simply a short nipple of pipe large enough to slip over the shaft and long enough to project beyond the end. A flat disk of steel, welded into the end of the nipple, completes the enclosure, while short pieces of 2-inch pipe, one end flattened and welded to the cap, the other flattened and drilled to fit over one of the bearing studs, hold the device in place.

**Blanked pipe nipple, large enough to slip over bearing end, serves to protect shaft against possible contact.**

To remove the shield when the shaft end is to be utilized, it is necessary only to take off the stud lock nuts, and then to rotate the device—in this instance clockwise—to swing the drilled end of the brace off the stud, when the cover can be slipped from the shaft.

### 5. DRILL BIT KINK

## Make-Up Support Speeds Change Over

WHEN making up a new bit on a drill collar, it sometimes happens that too much weight is put on the sub, or that the string does not quite "reach" for engaging the threads.

To save time on this job and to protect the threads from possible abuse, a short piece of 2 x 12-inch board, with wire bails or handles at the ends, is set across the opening of the rotary table above the usual bit breaker. The bit is stood upright on the board, and the drill collar lowered to within a foot or so of the top of the bit threads. Then, while two of the crew hold the board and its bit up in contact with the sub, a third rolls the bit around on its cutters, engaging and running the threads up to a snug fit. The lift on the board provides necessary pressure to insure proper engaging of the thread, without possibility of crossing or jamming the matching surfaces.

After the bit is run onto the sub by hand, the collar is lowered until the breaker is engaged, and the bit set tight in the usual manner.

# ☆ ☆ ☆ ☆ WASHINGTON ROUNDUP ☆ ☆ ☆ ☆

THE only important development of the week was a revival of Congressional interest in the matter of crude prices, with members of the House threatening to set a price by legislation if OPA did not raise ceilings. The price agency's position was defended by Sumner Pike before a Congressional committee, but his contention that the industry had submitted no evidence justifying overriding of the President's "hold-the-line" order brought quick challenge from independent interests. Pike also asserted that the industry was making more money than a year ago and that more wildcat wells were being drilled than ever before.

Pike is scheduled to appear before another committee September 27 when, with representatives of PAW, he will be questioned further about the price situation.

A discussion of prospects for large importations into this country next year aroused much interest. Pike, admitting that domestic production had not kept pace with demand, predicted larger importing rates, and termed as "logical" a statement that plans call for importation of one billion barrels from South America during 1944, which Russel B. Brown pointed out is "three times the areas production."

During the week, Ickes, foreseeing the possibility of less drilling due to lack of manpower, urged operators to make the most efficient use of drilling crews and outlined a program which

**Congress Calls OPA's Hand and Threatens to Set Price**

**Pike Thinks 2,700,000 Barrels Daily Imports Logical**

**Specific Manpower Suggestions Made by PAW**

By B. F. LINZ
Washington Correspondent

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may give some degree of continuity and economy in operations.

A comprehensive and impartial review of the whole oil situation—supply and price—may shortly be issued by the Office of War Information, where Director Elmer Davis was reported in conference with OPA, PAW and other interested officials in an attempt to reconcile conflicting points of view. Primary objective of the OWI head is to get the dirty linen out of sight, in line with the President's recent warning that his officials must not conduct their laundering operations in public. His report, if and when issued, will be purely factual in nature, since OWI is not a policy-making body.

The discussion of imports aroused considerable interest at the Capitol, where Senator Butler of Nebraska said on September 21 that he was informed during a recent tour of South America that schedules already have been developed calling for an increase in Venezuelan production next year from 500,000 to 1,000,000 barrels daily, the bulk of which will be shipped to this country. Chile and Bolivia will furnish additional oil, he said, and on the basis of testimony before the committee that present production is now something over 4,000,000 barrels daily, imports from Latin America probably will represent a fifth of our supply next year.

Pike's testimony was challenged by Russell B. Brown, general counsel for the Independent Petroleum Association, who charged OPA with inconsistency, recalling that Brown on April 16, last, told the Patman committee that "my interpretation is, under the law and the order, that a price increase necessary for the effective prosecution of the war is certainly authorized."

"OPA has as yet made no assertion that a plentiful supply of oil is not necessary to the effective prosecution of the war," Brown said, "although it would not be much of a surprise if, having exhausted all other excuses, it were to adopt that one."

Denying Pike's assertion that OPA had no "evidence" of need for an increase, Brown cited the many investigations which have been made by Congress and PAW, but said "the most eloquent testimony at this moment is that the shortage is here."

The "absurdities which OPA emits for public consideration" were aptly illustrated by Pike's acceptance as "logical," the statement by Senator Bushfield that 1,000,000,000 barrels of oil was to be imported next year, he said.

"Not long back, according to the letter which OPA Administrator Brown wrote to Ickes—quoting from the 'leak' of that letter to some newspapers—the assertion was made that Venezuelan and Colombian production could be increased to 900,000 barrels a day," he commented. "Out of that amount Mr. Pike thinks it 'logical' to import more than 2,700,000 barrels a day—three times the production."

## Senate Committee Hears OPA Pike Again Say Crude Price Raise Not Necessary

Responsibility for OPA's refusal to grant a price increase for crude oil was thrown upon President Roosevelt's hold-the-line order September 20, when Sumner Pike, chief of the OPA petroleum price division, testified before a Senate agricultural subcommittee which is investigating the effect of gasoline rationing on farmers.

Pike declared that the two factors which motivated him to reject Ickes' appeals for increases, first of 25 and later of 35 cents a barrel, were that the industry is making more money than it did last year and that more wildcat wells are being drilled than ever before, but, he added:

"To raise a price which will affect living costs we are forced, under the hold-the-line order, to have about as much proof of necessity as a jury does of guilt to convict a man of murder—beyond a reasonable doubt. We did not have that proof."

Denial of a price increase has not adversely affected prospecting, Pike asserted, and indications are that 3300 wildcats will be drilled this year against 3219 last year and 3264 in 1941.

"More fields also were brought in last year than ever before," he said. "There does not appear to be much basis for the charge that OPA ceiling prices have ruined wildcatting."

Pike admitted, however, that domestic production has not kept pace with demand, and predicted that imports would have to be increased in the near future.

Responding to a statement by Senator Bushfield of South Dakota that he understood plans called for the importation of 1,000,000,000 barrels of oil next year, Pike said that sounded "logical."

Specifically expounding OPA's position on price in response to a question by Senator Hatch of New Mexico, who held that a price increase unquestionably would spur production, Pike declared "in the first place, we are getting as much or more drilling under existing prices as we ever had, and in the second place our figures show the producers are making more profit than ever."

Getting down to the subject of the hearing, shortages of gasoline for farm use, he asserted that they resulted from a transportation shortage rather than from a lag in production or exploration.

### *Ickes Urges Intelligent Use of Drilling Manpower*

Foreseeing the possibility of a slowing down of drilling operations owing to lack of manpower, Ickes last week urged operators to make the most efficient use possible of their drilling crews, outlining a program which will give some degree of continuity and economy in operations.

Ickes pointed out that instances have been reported of delays in the drilling of individual wells as long as 90 days, and said the results of a partially completed nation-wide survey indicate that unless men formerly in the industry can be induced to return, exploration and

development programs will fall far behind schedule.

"It is urgently necessary that the industry utilize to the fullest extent every man presently available to it," he emphasized. "With this in mind, we believe it is consistent to urge that producers and operators who employ the services of drilling contractors give serious consideration to the following five points:

"1. That the drilling of wells by producing companies be scheduled in advance to produce a continuity of operations for the contractors' crews and equipment, insofar as is practicable;

"2. That the contractor be given notice at least 30 days prior to the time of permanently releasing his men and equipment so he may seek work elsewhere for this equipment and these crews;

"3. That companies contemplating the use of contractors' services give the contractor as much as 30 days' notice, whenever practicable, before requiring him to move onto a new location;

"4. Where an unavoidable delay may be occasioned and the time for such delay can be computed, that the contractor be notified of the length of such delay so that his men will be laid off for only a definite period of time, instead of indefinitely;

"5. In proven territory where use of more than one rig is contemplated by a producer, permit the contractor to have at least two rigs in operation so that a saving may be effected in supervision, trucking equipment and equipment used in setting various sizes of casing."

## Tire Situation Not Met When Synthetic Available

The rubber situation again came to the fore last week, as the Truman Committee, investigating the cotton-rayon cord situation, was told that there will not be enough cord available for the proposed tire production and officials of rubber companies, in New York and Washington, warned that manpower lack as well as material shortages threatened to slow down the production program.

In Washington, William O'Neil, president of The General Tire & Rubber Company, pointed out that the current rate of tire building is only one third of that which will be required in 1944 if the quota of 30,000,000 tires is to be met.

He explained that while the industry turned out that many tires annually before the war for replacement alone and 15,000,000 additional for new automobiles, several factors now prevail which would make such a rate of operation impossible.

Among those factors, he cited the need for 30 percent more milling machinery to turn out the same amount of material from synthetic rubber that was produced with crude; synthetic slows down actual tire building by as much as 25 percent; women are now employed and are unable to produce as rapidly as men; present production is largely small tires for military planes and trucks, requirements for which will increase 25 percent next year, and work stoppages and absenteeism further reduce output.

To meet a 30,000,000-tire quota, O'Neil said, a huge expansion program will be necessary.

## California Reclamation Of Casing Gets Praise

Salvaging of 75,000 feet of casing monthly by West Coast producers, brought from Ickes September 23 praise of the cooperation which has been given PAW's reclamation program in that area.

"At least a million feet of casing have already been reclaimed, and the total is mounting each month," Ickes said. "This means oil producers are able to continue important drilling operations despite shortages of new material and equipment."

Most of the steel, he said, has been reclaimed from producing wells where overlapping strings of pipe were located, without jeopardizing the production of the wells.

Such casing, it was explained, usually is suitable only for re-use in the drilling of shallow wells, but serves also to free new steel for use in deep wells.

Reports to PAW on activities of the companies include the following statistics: Standard Oil Company of California, 185,000 feet reclaimed, current rate 17,000 feet a month; Shell Oil Company, 126,000 feet reclaimed, 21,000 feet a month; The Texas Company, 50,000 feet reclaimed, 8500 feet a month; General Petroleum Corporation, 75,000 feet reclaimed, 12,000 feet a month; C. C. M. O. Company, 7000 feet a month, and Union Oil Company, 7000 feet reclaimed, current rate 2500 feet a month.

## Committee to Assist Fuel-Oil Rationing

Representatives of the Atlantic Coast Oil Association Conference and the Oil-Heat Institute of America have been formed into a six-man committee to assist the fuel rationing division of OPA in the solution of operational problems arising in administering the fuel-oil-rationing program.

Members of the committee include: Lionel Jacobs, chairman of the Atlantic Coast conference, Automatic Heat, Incorporated, Philadelphia; Harry Evans, Kleen Heat Sales Corporation, Brooklyn (recommended by the Atlantic Coast conference), and Elwin E. Hadlick, president, Northwest Petroleum Association, Minneapolis; W. F. Scheierholz, president, Fuel Oil Association of St. Louis; Lester Scott, Merchants and Manufacturers Association, Washington; and Frank E. Spencer, Socony-Vacuum Oil Company, Chicago (recommended by the Oil-Heat Institute).

## Initiate Permit System for Oil Movement on Lakes

All movement of crude oil and products on the Great Lakes and the New York state barge-canal system will be put under the permit system beginning September 28, it was announced September 20 by the Office of Defense Transportation.

The program for instituting the permit system, to improve control of the movement on the lakes, was effected by an amendment to previously issued orders, striking out provisions which specifically except from permit requirements vessels transporting crude and products from any point on the Great Lakes to Buffalo or Oswego, or to points on the New York barge-canal system, including points on the Hudson River; northward or southward from the confluence of the Hudson and the Erie Canal at Waterford, and generally eastward on the New York barge-canal system.

## Roosevelt "Boner" on Production Explained

Following the furor created by the statement made by President Roosevelt that United States petroleum production has increased 66 percent since the start of the war, an explanation of his "boner" is disclosed by a study of actual month-by-month figures that are generally available.

The President apparently made the mistake (or somebody made it for him) of using the production figure for August, 1939, as the basis for comparison with present production rates. It will be remembered that at that time there took place a six-state shutdown in production, and that total output for the month was down to 2,614,000 barrels as a result. This yield, when figured against that of August, 1943, provides the 66 percent increase figure which the President used, and ascribed, mistakenly, as applying to the month of September in the two years cited.

Production in July, 1939, prior to the shutdown, was 3,582,000 barrels daily, and during September, first month of war and the month immediately following the shutdowns, production was 3,608,000 barrels. August production cannot be considered normal in any sense, and therefore the comparison means nothing.

As a matter of fact, as many have pointed out, a 66 percent increase this month, over the corresponding month of 1939, would necessitate the production of nearly 6,000,000 barrels during the current month. The August figures were made available in September, which fact probably accounts for the error made by the President.

Actual production increase since September 1, 1939, through August, 1943, amounts to approximately 17 percent.

## Texas Storm Reflected In East Coast Stocks

PAW's concentrated effort to build up East Coast stocks is due as much to anticipation of increased military demand as to the desire to get as much oil into storage as possible before bad weather, it was disclosed last week as reports showed the inventory position had moved up from 41.9 to 42.5 percent of normal.

In view of the military withdrawals which are to be expected, it was declared, civilian supplies must be built to the point where there is an adequate cushion against emergencies.

The report revealed that the hurricane which hovered over the coast of Texas last week seriously interrupted the oil movement. Evacuation of refineries in the threatened area, Ickes said, cost 400,000 barrels of crude throughout, and the storm held back the movement of 300,000 barrels of oil to Houston and Smith's Bluff, where it was to move east by tank car, and another 250,000 barrels of barge shipments of crude and products into the Houston-Texas City Area.

## Tanker Builders Urged To Still More Speed

Pleased with the efforts of the tanker builders but desirous of seeing even more oil carriers put into service quickly, the Maritime Commission has initiated a competition among the five tanker-building yards, the winner each month to fly a "tanker champ" flag.

The flag will be awarded for the first time early next month to the yard showing the greatest productivity for each way during September. The winning yard may fly the banner only as long as it leads the field, and should some other yard show greater productivity per day during any month the flag will change hands. The shipyard winning the flag the greatest number of months will be declared "United States tanker production champion of the United Nations' war effort."

Yards designated by the commission as eligible to compete in the contest include Alabama Dry Dock & Shipbuilding Company, Mobile; W. A. Bechtel, Marine Shipbuilding Division, Sausalito, California; Bethlehem-Sparrows Point Shipyard, Inc., Baltimore; Kaiser Company, Inc., Swan Island Yard, Portland, Oregon, and Sun Shipbuilding & Dry Dock Company, Chester, Pennsylvania.

Commission figures show that during the 8 months ended August 31, a total of 96 tankers aggregating 1,597,600 deadweight tons were delivered into service, a 60 percent increase over the entire production of 1942.

## Barge Building Program Further Curtailed

Further cuts in the tank barge construction program have been made by the Office of Defense Transportation, which disclosed September 23 that in addition to the 36 wood and composite barges canceled September 9, 13 steel barges also will be eliminated, saving nearly 2400 tons of steel.

In addition to actually canceling 49 carriers, the revised program, based on the improved petroleum transportation situation, calls for conversion of 55 of the 155 steel barges yet to be built to dry-cargo units, and construction of 110 of the remaining 269 wood and composite barges in such manner as to permit their quick completion as either tank barges, deck scows or dry-cargo hoppers, as conditions may warrant.

All of the 100 600-horsepower tugboats will be built, but two of the 21 river towboats have been canceled.

## Business Leaders to Get Inside on War Strategy

J. F. Drake, president of Gulf Oil Corporation, Pittsburgh; R. W. Gallagher, president of Standard Oil Company (New Jersey), New York, and W. S. S. Rodgers, president of The Texas Company, New York, will represent the oil industry among the 200 industrial, labor and newspaper leaders who will meet in Washington September 27 and 28 to receive from high Army officials a picture of the military situation and the equipment that will be required for new overseas offensives.

The meeting was called by Robert P. Patterson, undersecretary of war, who explained that "as our troops begin large-scale operations on the continent of Europe we are calling together the representatives of those on whom we depend for the instruments of war so that they may know precisely the military job that lies ahead."

Confidential information on the military and economic strength of the enemy, an outline of the status of operations in all combat zones, the strategy of the United Nations, including the time and equipment needed to prepare operations, and the efficiency of our equipment in the field will be laid before the group by members of the general staff, while Charles E. Wilson, WPB executive vice president, will discuss the situation and task on the home front.

## Sea Transport Charges Reduced on Both Coasts

Heavy cuts in the surcharges on petroleum and products on 14 important sea routes were announced September 22 by the War Shipping Administration.

Among the voyages on which the oil rates were slashed were those from the Netherlands West Indies and United States Gulf ports to the Portland Pipe Line and to Halifax, N. S.; from Gulf and Caribbean ports to Atlantic ports; from Gulf ports to Bermuda, West Indies, Central and South America; between Pacific ports and between Pacific ports and Canada, Alaska and the Hawaiian Islands.

The new rates reflect the results of efforts to conquer the submarine menace along the sea lanes over which much of our oil traffic moves.

## OPA Proposes Uniform Refined Products Prices

In order to establish a uniform price, OPA proposes three new sets of maximum prices for refined petroleum products, f.o.b. refineries in the Inland Texas-Louisiana area.

Uniform prices have never prevailed in this area, this being particularly true during the basing point period. Inland Texas-Louisiana refineries have had a slightly higher price on some products than the Gulf Coast area. The proposed prices for shipments to Arizona, Arkansas, Colorado, Louisiana, New Mexico and Texas are in several instances lower than the published prices or the base ceiling prices of October, 1941.

It appears that the prime purpose for the establishment of these price areas and categories is to equalize the differentials in prices of the Gulf Coast as against the Inland Texas-Louisiana area on shipments to District 1.

The prices for shipment to states other than those listed above or for District 1 shipments, are based generally on Oklahoma quotations less one-eighth cent. The theory being that the eighth represents average freight differentials to District 2 destinations of the Inland Texas-Louisiana area as against Group 3 or Oklahoma.

The proposed schedule would establish uniform prices for f.o.b. refinery sales of gasoline, distillate fuel and diesel fuel in the following areas of District 3: Texas Panhandle, West Texas, North Texas, East Texas and Shreveport-El Dorado area.

The prices would be set up in three classifications based on shipments in (1) Arizona, Arkansas, Colorado, Louisiana, New Mexico, Oklahoma and Texas, (2) District 1, and (3) areas other than those shown above.

## Plug-Back Row With WPB Makes Congressional Record

Use of a handful of steel bullets to bring in at 6770 feet a Louisiana well which had been unsuccessfully drilled to 10,000 feet under an exemption from the M-68 order resulted in a full-dress trial before PAW on charges that the operator had violated WPB restrictions on the use of steel, Congress was told September 21 by Representative James H. Morrison of Louisiana.

Highly critical of PAW's attitude, which he characterized as the "unpardonable red tape of a bureaucracy here in Washington," Morrison inserted into the Congressional Record a statement by J. Edward Jones, president of Sugar Field Oil Company, Inc., against whom the charges were brought, showing that perforation of the well, undertaken with the approval of the Louisiana authorities, saved the waste of 10,000 feet of pipe which had been cemented in and added to the urgently needed supply of aviation gasoline grade crude.

"Here is the so-called 'crime' which the Interior Department set up a committee to go on a fishing expedition, bringing one of its lawyers from Texas, and causing a busy oil operator to transport his whole organization to Washington at a loss of thousands of dollars to him, thousands of dollars to the taxpayers, thousands of barrels of high-octane oil and hundreds of manpower hours," Morrison declared.

"After a full hearing, the following was the crime which came to light—a resourceful oil operator had taken a handful of steel bullets and reworked a dry well which would produce thousands of barrels of oil without the use of any additional steel piping, drilling equipment and manpower hours. The so-called heinous part of the so-called crime brought to light was as follows: The reworking of a dry well which had been abandoned with a handful of steel bullets at a spot where the oil sand was rather than at a spot where the oil sand was not. That, and that alone, constituted the basis for this fishing expedition by the Interior Department here in Washington."

Morrison's exposition showed that Jones had been charged on five counts of plugging back wells without PAW permission, three of which related to wells originally drilled in 1939, 1940 and early 1941, respectively, from which he salvaged more than 11 tons of tubing below the points of perforation to offset the steel in the 254 bullets used.

## Leavell Transferred from Army to State Department

Colonel John H. Leavell of Tulsa, who has been serving as an oil expert in the War Department, has been retired from the Army and is now with the Department of State.

Leavell is a member of the foreign service auxiliary, set up about two years ago to bring into the department expert and clerical assistance which would be available for assignment to any job coming before the foreign service, of which it is a part.

# Extension of Federal Control Into State Affairs Condemned at Compact Meeting

Opposition to extension of federal control in the affairs of states was voiced last Friday at the two-day interstate Oil Compact Commission meeting in Santa Fe New Mexico by Governor Jack Dempsey of New Mexico. In no uncertain terms he condemned efforts of the Department of the Interior to control New Mexico oil operations through unitization agreements on federal owned lands.

New rules proposed by the department recently provided a unitization form which must be followed, although state lands and federal lands lie side by side in the same field. The supervisor in the U. S. Geological Survey would control drilling operations, determine where and when wells were to be drilled.

A meeting has been scheduled for Denver late in October at which state representatives, oil operators and Department of Interior officials will have an opportunity to confer on the rules proposed.

"I fear the constant urge of Washington bureas to extend their control of the states' business. Not only should we refuse to relinquish what little authority the states retain, we should try to recover some of the authority that has been lost," asserted Dempsey.

He pointed out that regulations with criminal penalties are written by bureaucrats who cannot be removed from office until divine providence acts, and sometimes that is too late. Elected officials may be removed if they fail to satisfy the public, he explained.

Attorneys for some of the companies pointed out that under the program proposed, the U.S.G.S. supervisor, in order to protect the royalty interest of the government, would control the entire working interest. Not only would the supervisor say where to drill, he would say how deep the drilling should go. Some attorneys thought the plan would discourage unitization, rather than encourage it. Why should the unitization form be fixed when conditions vary? Why should the states surrender control? These questions were propounded to the representatives of the U.S.G.S. who attended the meeting, but they were not prepared to answer.

The New Mexico State Land Commissioner indicated his opposition to the program pointing out that half the production in the state is on state lands. He wanted unitization only when it is proven to be wise. He has no desire to supervise the working interest beyond protection of the state royalties, and expressed the opinion that the federal authorities should take a similar stand.

The New Mexico Conservation Commission is ready to handle the situation, the land commissioner reported through his assistants and he has no desire to take over that work.

Warwick Downing, Colorado representative on the compact, declared that the policies of the Department of the Interior had prevented proper prospecting on federal lands for 10 or 15 years. Unless operators are given a fair break he thought these lands would remain undeveloped.

Downing said that a group of operators from Colorado, Wyoming and Montana were preparing to attend the Denver meeting hoping to find the Interior Department ready to accept regulations which will be reasonable.

### Successful Meeting

The meeting was one of the most successful held in two years by the compact commission. Attendance was larger than usual, especially of top flight executives and also from members of regulatory bodies of oil producing states. For the first time representatives of large gas producing companies attended. Their interest arose from recent approval of the Tennessee gas line and the prospective approval of another line from Hugoton, Kansas, to the East. Both of these lines would take huge quantities of gas from the Southwest and Mid-Continent to Eastern markets. These Southwestern and Mid-Continent producers could see their reserves transferred to the East, and stored in depleted gas fields where they might be available long after fields of Texas, Oklahoma and Kansas were gone. One engineer pointed out that not only the gas reserves of the Southwest would be depleted, but the revenue would be lost to the states likewise. While gas revenues now are relatively unimportant, engineers present pointed out that processes have been developed for recovering of four or five gallons of gasoline from each thousand feet of gas, which would involve considerable tax money.

### Hobbs Cooperative History

Included in the addresses was a history of the cooperative efforts of New Mexico state officials in their program to make Hobbs the best managed competitive oil field in the United States. John Kelly, state geologist for New Mexico, pointed out that although the adoption of practices designed to conserve the reservoir energy increase the ultimate recovery and extend the flowing life of the field have cost the operators many thousands of dollars, yet hardly without exception these expenditures have been made willingly in a spirit of cooperation for the common good of the pool. The program was initiated in 1934. Proration, however, had gone into effect in 1930 when there were 26 producing oil wells in the field. By January 1, 1943, there were 252 units of 40 acres each that were producing. Up to that time the total recovery was 100,850,576 barrels of oil, an average of 10.851 barrels per acre. Back in 1929 the first conservation law was enacted by the New Mexico legislature and thereafter cooperative agreements for handling the pools were instituted under the direction of the state geologist. Oil company representatives signed the first Hobbs proration agreement June 11, 1930. The improved New Mexico conservation law was enacted in 1935 and has served as a model in other states where legislation was enacted subsequently. It was this law which created the New Mexico Conservation Commission which has functioned since that time. Kelly pointed out that over 99 percent of the total Hobbs oil had been produced under restricted rates of flow. As a result more than 14,000,000 barrels of fluid has been produced with relatively constant gas-oil ratios which vary between one and two thousand feet per barrel. Since 1938 the pressure has dropped only 20 pounds, an average of four pounds per year. The Conservation Commission of New Mexico has always enjoyed the fullest cooperation, Kelly said, both from the engineering standpoint and from the standpoint of enforcement of its regulations from all operators. "I believe that this spirit of cooperation is the major factor in making Hobbs the best managed competitive field in the United States."

### California Prospects

E. E. Pyles stated in his paper prepared for the commission that according to geologists and production engineers most familiar with today's exploration and production possibilities in California, discovery of at least three billion barrels more oil reserves may be anticipated there. But he added that the development of secondary-recovery methods would be the greatest contribution to the state's ultimate production of petroleum.

Pyles estimated that after depletion of all known California oil fields by present methods of production, not more than 25 percent of the original oil content of the producing sands will be recovered. Applying a 25 percent recovery factor to a total ultimate production of an estimated 9,000,000,000 barrels would leave a residual crude content of some 27 billion barrels in the ground. A portion of this residual crude is available for production if ways can be devised for extracting it.

He stated that maintenance of the present rate of production in California would exhause the known reserves in 10 years except that it would, of course, be impossible to crowd the productive life of existing wells into so short a period. The extent to which California's petroleum supplies will be imperilled by abnormal wartime production rates will be determined only by the length of the conflict and the required intensity of production efforts.

He expressed his faith in the ability of the industry to prolong the life of California oil resources far beyond the indicated 10-year supply, and predicted that California fields will be the primary source of supply for the Pacific Coast area for at least 30 and perhaps 50 years to come, provided good judgment is used by authorities who set the prices the petroleum industry receives for its goods and services.

### Oil Planning Has Errored

Earnest O. Thompson, member of the Texas Railroad Commission, stressed the serious shortage of crude oil in the United States. "This shortage," he said, "is not impending—it is here, now. We are really short on oil and gasoline. Our stocks of crude oil and of finished products are so low that no assurance of security can come from that source. Crude oil is on a day-to-day basis, well-to-refinery-to-user."

Thompson said current consumption had to be met with current production, as there is no longer a surplus of stock in storage to draw from.

"We are missing the boat on the handling of our oil development. And the boat will eventually be filled with

Texas' deepest hole (14,378'), J. S. Abercrombie Co.—Magnolia Petroleum Co. McDonald B-1, Old Ocean Field, Brazoria County, Texas Drilled with DREADNAUGHT Type "KY" Crown Block and Type "PY" Traveling Block.

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foreign oil. The tankers we are building will go to South America to get their cargo on a oneway-pay load. Foreign trade should mean that our ships should carry something to sell wherever they go and bring back the things we buy from that particular country. But our tankers will go empty to South America. If the price of oil had been permitted to advance on a parity with other basic commodities in the United States, our wildcatters would have found the oil."

He stated that after every available barrel of oil is produced from known and developed fields of America, we will still be 500,000 barrels per day short of the anticipated demands at the peak of 1944 estimate of crude-oil requirements.

He hoped that progress made in the last 10 years in the application of sound engineering principles to the production of oil and gas by state regulatory authorities and good operators would not be lost, since on adherence to those principles and their honest application our future oil supply largely depends.

"In our zeal to produce greater quantities of oil for a short period we might easily endanger the recovery of billions of barrels that can, under proper controls of bottom-hole pressure, gas-oil ratio and water-oil ratio, be produced during the next generation or two from our presently known fields."

Thompson stated that we can and will, under sound practices, produce all the oil our armies, navies and air forces will require. Others will have to take the cut, but the armed forces come first and can be readily supplied.

### Crude Price Causing Rationing

B. L. Majewski in his address held that low crude prices are the underlying factor in gasoline rationing. His plea was for the Interstate Oil Compact Commission and the governors and people of the states east of the Rocky Mountains to help the oil industry and the governmental agencies involved to maintain an unrestricted flow of gasoline and other pertoleum products to our fighting forces wherever they may be, on time and in more than enough quantity for winning the earliest possible victory on all fronts.

He asserted there must be an unrestricted flow of gasoline which can only be insured through further voluntary gasoline conservation by the people themselves, essentially in the Central and Southwestern states where there are no longer any gasoline surpluses.

"This mechanized global war is dependent on oil. The armed forces are now using approximately 600,000 barrels of gasoline every day. Nearly 1 gallon of every 3 now produced east of the Rockies goes directly for fighting. Total war needs will soon jump to nearly 4 gallons in every 10—40 percent."

"Because of these exceptionally large and unexpected military liftings the demand for crude oil has far exceeded production for more than a year and a half. Early in 1944 above-ground crude-oil stocks will approach the danger level.

"The point is approaching where this region east of the Rockies no longer faces a geographical shortage of oil due to transportation, but a shortage of oil itself. This can only mean that civian consumption must be curtailed on the basis of need." Farmers will receive all of the motor fuel they need on the same footing as the Army and Navy. Majewski added that "We are now at the point where we cannot be sure we can continue to produce enough crude oil to meet the requirements of war and of essential civilian use unless we use it prudently. Gasoline conservation will keep oil stocks from falling below the level necessary for an unrestricted flow to our fighting men."

He blamed OPA prices as a factor causing the early shortage. "A short-sighted discriminatory price policy in petroleum by a cycle of price administrators and their staffs has resulted in deeper rationing and threatens to impair the transportation system of the Middlewest and Southwest. Unless this attitude is changed now another deeper ration cut can be expected before next July." PAW has recommended a 35-cent-a-barrel increase in crude prices and commensurate increases in product prices. The industry has submitted data in support of this one incentive needed to maintain an adequate supply of oil to win the war.

He ventured the opinion that if the Interstate Oil Compact Commission and the governors of the rationed states pressed upon Congress the urgent need for remedial price action, by October 1, 1944, there would be no need to ration petroleum products east of the Rockies.

### Gas Lines Opposed

Plans for the construction of a natural gas pipe line to move more than one hundred billion cubic feet per year from either the Kansas or Texas fields to the eastern industrial area, were classified as an "outrage" by Eugene A. Stephenson, professor of petroleum engineering at the University of Kansas, who addressed the compact meeting September 25.

Stephenson pointed out that the line could contribute little if any to the war effort, as it would require more than a year to build and would require that railroads, already staggering under excessive loads, transport the proposed pipe from industrial centers to the pipeline route. He asserted that as compared with the gas reserves which the line proposes to utilize, the coal supply is hundreds of times greater, and that it already was located in the East and that labor was available with which to mine the coal.

Such heavy drainage of Midwest or Southwestern gas reserves would soon result in their exhaustion, and hence the line is "merely a temporary expedient," declared Stephenson. If the line is designed to serve expanding markets based on new industries grown out of the modern age of chemistry, "why should such markets be located in the congested industrial centers? Why not move industry to the raw materials rather than the raw materials to industry? asked Stephenson.

## Illinois Court Upholds Oil Production Tax

Illinois' two-year-old 3-percent oil-production tax act was held constitutional September 20 by Circuit Judge L. E. Stone of Sagamon County circuit court. It was the first court test of the act that went into effect July 1, 1941.

"This tax is in no way discriminatory so far as I am able to see, and the presumption is that it is constitutional," the court ruled.

The act imposes a tax of 3 percent on the value of all oil produced in the state. Since its inception, nearly 50 individuals and firms have tied up $8,398,661.41 in taxes which they paid under the act and under protest.

The court in its opinion said the firms challenging the act's validity argued that only the actual operator or manager of an oil well is engaged in the production of oil and that it was unconstitutional to impose the tax burden on persons having a royalty or other interest in the oil at the time it is taken from the earth, especially the landowners.

"The owners of these royalties are the persons without whom no oil could be produced in Illinois; they have the final say as to whether oil may or may not be produced out of their premises," the court said. "Theirs is the overt act which starts the production of oil."

Tracing their connection with the production of the oil, he held:

"It is my opinion that they are producers de facto and that the legislature was within its rights when it so defined them."

Turning to the definition of the word producers, the court said he felt the state legislature properly defined "producers" in the act although Webster's new international dictionary defines it as "one who produces, brings forth or generates."

## Stewart Challenges Pike's Crude Price Statement

W. L. Stewart, vice president for North Texas of the Independent Petroleum Association of America, in a telegram to Sumner Pike, chief of the petroleum division of the Office of Price Administration, challenged Pike's testimony before a Senate committee investigating a farm gasoline shortage (page 28).

Stewart's telegram to Pike follows:

"Your statement, if correctly quoted in the newspapers this morning (Tuesday), that oil producers are making more money than ever before, is most certainly not true. It is true, however, that the major oil companies, who are buying the oil produced by independent operators at unfair, inequitable and unreasonably low prices allowed by the Office of Price Administration, are making more profit than ever before. It is also true that these major companies are charging our Government exorbitant prices for petroleum products made from our low priced crude oil and as far as I have been able to learn, no effort has been made by OPA to curb these excess profits made at the expense of the American people during wartime.

"It sometimes seems that the major oil companies have an undue influence on the decisions of the Office of Price Administration and the suspicion of this influence is strengthened by your statement in the press this morning (Tuesday) encouraging importation of foreign crude oil.

"If it were possible to arrive at the figures within a reasonable time, I would challenge you to cite one major oil company whose production department, if allowed to stand on its own feet, shows a current profit. The independent operators cannot wait that long for relief from their present desperate sifuation. On behalf of hundreds of independent oil producers who, contrary to your statement, are not only not making more money than ever before but are barely able to stay in business on present price levels, I ask that you publicly clarify your statement."

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Buy bonds to help keep a stream of arms going to the front. We can never equal the sacrifice of our boys, but we can buy bonds until it hurts. The bonds, in turn, will help win the peace by providing a gigantic reservoir of purchasing power that will sustain prosperity for our fighters when they come home, and for ourselves.

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# National Petroleum Association Meeting Concerned With Economic Aspects

Economic aspects of petroleum held outstanding spots on the program of the Forty-First annual meeting of the National Petroleum Association at New York, September 21 and 22.

A turn to the Middle East and to South America as a solution to the problem of more oil for the war effort was recommended by Joseph E. Pogue, Chase National Bank, who said that reserves of the two areas are larger than those of the United States. As a solution he said:

"Whatever the administrative disposition of the problem may be, the economics of the petroleum situation indicate that the oil resources of the Middle East and of the Caribbean region will be drawn upon more fully for war purposes and future increments to the military demand will be diverted more and more to these sources. In fact, this shift is already well under way. It is clear, therefore, that for the duration of the war the American petroleum industry has become indissolubly linked with foreign sources of supply and no major domestic oil problem can now be resolved except in the light of all foreign alternatives."

Pogue also urged formation of a foreign policy as to oil, saying: "The problem of postwar world reconstruction cannot proceed along sound economic lines without the establishment of petroleum in a role consistent with its importance. For the purpose it is necessary that the United States formulate a foreign oil policy that will at the same time serve the interests of our country and further the productive capacity and volume of trade of foreign countries. Such a policy should be friendly to American enterprise which has demonstrated its ability in oil developments the world over and should have the objective of making foreign oil activities commercially attractive so as to create a dynamic urge toward further progress. To these ends our nationals will need freedom from burdensome operating controls, stability of contracts and parity with all competitors. If these conditions are provided by international understanding this country and its petroleum industry can make an outstanding contribution to the future stability and well being of the world."

Bruce K. Brown, deputy petroleum administrator for war, gave an analysis of consumption to show where petroleum products are going. He gave 4,400,000 barrels as the total of raw materials out of which come 3,800,000 barrels of finished products, the remainder being refinery fuel, waste and exports, which are trivial. The refinery output is divided into 1,800,000 barrels of gasoline and 2,000,000 barrels of other products, on a daily basis.

After considering how other items have been restricted in use, he turned to gasoline and this analysis:

"Reverting to the approximately 1,800,000 barrels of gasoline which we produce every day, only a small proportion can safely be used by civilian passenger automobiles. As stated by Petroleum Administrator Ickes, the daily military demands already are at the rate of 600,000 barrels. That leaves 1,200,000 barrels. Exhaustive surveys indicate that trucks, buses and taxis simply must have 450,000 barrels each day. Failure to provide it would mean a breakdown in essential public transportation services. That leaves 750,000 daily barrels of gasoline to be divided between industrial use, farm use and civilian passenger automobiles. It should be obvious to all that non-essential industries have been pretty much discouraged by lack of priorities for raw materials and by manpower problems so it is not asking too much to urge confidence in the idea that there is little waste of gasoline in present industrial use."

Development in refining processes in war time was outlined by Dr. Gustav Egloff, Universal Oil Products Company, Chicago. Other speakers were H. A. Logan, association president; Dr. Alfred P. Haake, economist, and J. B. Fisher, Kendall Refining Company.

All officials were re-elected: H. A. Logan, President; Walter Reitz, J. B. Fisher and W. S. Zehrung, vice presidents; Herbert Eaton, recording secretary, and G. B. Hunter, treasurer.

### *Pennsylvania Conference Urged to More Wildcatting*

A systematic program to find more and more crude oil so that there will be no danger of a lag in the nation's war effort was urged by Wirt Franklin, PAW special deputy, before a group of Pennsylvania oil producers in Pittsburgh recently. The meeting was arranged by the Pennsylvania Grade Crude Oil Association and the Pennsylvania Topographic and Geologic Survey, with the latter agency explaining the scope of its work in the oil fields as its contribution to the program.

Franklin was emphatic in saying that the time-tested method of "drilling a lot of holes will result in finding some oil." Oil men, particularly the independents, have always succeeded by this method in the past and he saw no reason for it to fail now. He added that it is a recognized fact that an adequate price is necessary to stimulate production and finance wildcatting ventures.

The industry drilled 1836 wildcats during the first 7 months of 1943, Franklin said; 272 of these are 14 percent, were productive wells. In the corresponding period last year, 1719 wildcats were drilled, and 276, or 16 percent, were classified as successful completions. This decrease in percentage of successes indicates that the industry must put forth still greater efforts in order to keep pace with the demands of war, Franklin pointed out.

By the year's end, according to Franklin, the demand for crude oil may exceed the then productive rate by several hundred thousands of barrels daily. The industry would then have to supply the difference by withdrawals on storage which is already far too low. Such a condition if continued for many months, would seriously endanger the nation's reserves and place us in a position of dependence, if not actually bring about a critical situation in the war. In the face of these circumstances, Franklin urged the Pennsylvania oil men to strain to the utmost in seeking out new sources of this valuable premium crude through exploratory drilling.

Dr. R. E. Sherrill of the University of Pittsburgh and a representative of the state survey staff, followed with a detailed and exacting analysis of the accomplishments of that agency, particularly during the last six or eight years. By means of maps and charts he explained how the survey had gathered a storehouse of information on oil-bearing sands. While this work was pursued with the objective of making such information available to operators who wish to develop secondary-recovery processes, it also has some application to a program of exploratory drilling. Dr. Sherrill did not attempt to indicate which areas in unproven territory would be most likely to result in the discovery of productive sands, but he did point out that work such as the survey does will give the operator much valuable information to use as the basis for exploratory drilling. Intensive study of depositional geology and the general trends of producing formations can be of material aid to the operator who wishes to embark on such a project.

# Army Spokesman Says Military Successes Increase Need for Oil in Fighting War

Army cooperation in solving civilian oil problems to the greatest extent possible consistent with the main job of winning the war was promised the North American Gasoline Tax Conference at Milwaukee last week by Lieutenant Colonel Frank S. Wilder of the fuels and lubricants division of the Quartermaster General's office.

Speaking in the place of Brigadier General Covell, director of the division, who was unable to attend the conference's 18th annual meeting, Wilder outlined the multitudinous uses of oil in modern warfare and touched lightly upon the tremendous problems which have been faced by the industry and the government in supplying those needs.

"The scope of petroleum in war is broad almost beyond comprehension," he declared. "Its importance can not be exaggerated."

Until April of this year, approximately two thirds of the total tonnage serving fighting forces overseas was devoted to petroleum products, and even now the figure is in excess of 50 percent. General Montgomery, he disclosed, gave gasoline transport first priority in his advance from El Alamein to Tunis, rating it even before troops, ammunition, food and water.

Wilder compared our oil supply situation with that of the enemy, warning that military requirements will increase as our efforts become more successful. This, he explained, was due to the fact that in addition to the large amounts now supplied to our Allies, we

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Fort Worth, Freer
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San Antonio, Sundown
Wichita Falls

will have to provide more and more to the countries which we free from the Axis.

"Thus, in spite of our military successes," he pointed out, "it is obvious that it will be some time before we can expect any slackening in war's demands for petroleum products."

While some sources estimate that the total supplies of oil and substitutes available to the Axis in occupied Europe range only from 300,000 to 400,000 barrels daily, or less than 10 percent of our output, he said, this is partially offset by their shorter supply lines, Germany being able to make use of coal and wood as fuels in transporting men and supplies over distances rarely exceeding 700 miles, while our supply lines run from 5,000 to 12,000 miles with oil as the prime fuel.

"On the other end of the Axis," Wilder said, "the Japanese are in a much better position than before the war. Formerly they imported some 40,000,000 barrels of oil per year. By dint of much effort they dropped their civilian requirements by 10,000,000 barrels a year. Their reserve stocks are not known today, but it is a known fact that the production capacity of the Netherlands East Indies which they seized early in the war was approximately double the reduced Japanese requirements. Since the Japs possessed sufficient tankers to move their requirements and the manufacturing facilities equal to the task of refining them, it is presumed that their seizure of these huge sources of raw material has materially simplified their fuel problem."


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## *Drilling Contractors Complete Program for Meet*

Covering the most pressing problems now confronting the drilling branch of the oil industry, the program for the Third Annual Meeting of the American Association of Oilwell Drilling Contractors, at the Rice Hotel, Houston, October 5 and 6, has been completed. Announcement from association headquarters characterizes the program as a "strong" one, and due to numerous government restrictions now imposed on drilling contractors, equipment and service companies are urged to take advantage of the various opportunities afforded by the meeting to get first-hand information.

In addition to routine committee meetings, the following papers will be presented: "Need for Continuity of Operations," J. E. Warren of Carl B. King Drilling Company, Midland, Texas; "Fitting Drilling Equipment and Practices to Present Conditions," Lyle Cashion, Gulf Oil Corporation, Houston; "The Need of the Drilling Contractor in the Oil Industry," Chase Sutton, The Pure Oil Company, Houston; "Past Achievements and Future Aims of the Association," A. H. Rowan, Rowan Drilling Company, Fort Worth; "The Need for Sound Accounting Practices," W. K. Powell, Two States Drilling Company, Dallas; "The Drilling Contractor's Responsibility in the Industry," D. R. Knowlton, Director of Production PAW, Washington; "The Equipment Situation," Frank Watts, Director of Materials PAW; "Manpower Problems," Dr. F. H. Harbison and George E. Dewey, PAW Labor Counselors; "Manpower and Selective Service," Major John D. Copeland, Jr., Manpower Division State Selective Service Bureau, Austin.

At the banquet, October 5, the guest speaker will be Coke Stevenson, Governor of Texas. John R. Suman, Humble Oil & Refining Company, will serve as toastmaster.

The committee on arrangements in Houston includes: general arrangements, John Chapman, Grey Wolf Drilling Company, chairman; entertainment, Jack Frazier, chairman, Gordon Richmond, Hughes Tool Company, and Rex Hamaker, Reed Roller Bit Company; finances, Don McMahon, chairman, Nicklos Drilling Company, and C. W. Alcorn, Falcon Seaboard Drilling Company; reservations, Louis Franklin, chairman, Franklin and Tidemann, and E. O. Buck, Rowan Drilling Company; reception, H. E. Hamilton, chairman, Morris-Hamilton Drilling Company, and Don Crosby, Wynn Crosby Drilling Company.

## *Study Water Injection Problem in East Texas*

Research engineers of East Texas Salt Water Disposal Company, and Professors F. B. Plummer and H. H. Power, of the University of Texas, are cooperating in a research project aimed at solving the problem of resistance to salt-water injection on the part of the producing sands in the field. After a comparatively short time many of the intake wells build up back pressures that prevent repressuring. The special research investigation is intended to ascertain the cause of the clogging and to establish methods of preventing it.

## Gas Association Changes Annual Meeting Date

Conflict of dates in St. Louis with the World Series baseball games has resulted in such congestion in hotel and travel facilities as to make necessary a change in the dates for the annual meeting of the American Gas Association. The executive board has decided that the Twenty-Fifth Annual Meeting shall be held at the Jefferson Hotel in St. Louis, Tuesday, Wednesday and Thursday, October 26, 27 and 28.

All members have been advised to cancel present rail reservations and make new ones promptly. Hotel reservations previously confirmed will be honored for the new dates, if reconfirmed direct to hotel within a period of seven days giving new date arrival. All members who do not have hotel reservations should send a request for the desired accommodations to the American Gas Association Housing Bureau, Suite 304, 911 Locust Street, St. Louis. In requesting accommodations the names of those persons occupying the rooms must be given.

As far as possible the meetings will be arranged in the same order and the same relative times as previously for the original dates.

## Material Situation Seen as Improving

Richard L. Cochran, chief of PAW District 3 materials division, told 600 oil men attending a meeting of the East Texas Chapter of the American Petroleum Institute in Kilgore September 22, that the general material situation for the oil industry is improving. One remaining difficulty, he said, is engines, and PAW has a good supply of these earmarked for delivery after the first of the year.

He stated that military steel needs are lessening, and supplies for industrial purposes are therefore easing up; also the petroleum industry is getting more consideration in Washington. The fourth-quarter demand for all agencies for carbon steel exceeded the supply by 26 percent, but the oil industry was cut only 10 percent, less than any other agency except one.

## Natural Gasoline Output Remains Steady in July

Production of natural gasoline and allied products in July remained at the June level of 9,873,000 gallons daily, with gains in the Texas Gulf Coast, East Texas and California areas offset by decreases in other districts, it was reported last week by the Bureau of Mines.

Included in the production, the bureau stated, were 176,190,000 gallons of natural gasoline against 164,892,000 gallons in June, 55,146,000 gallons of cycle products against 51,870,000 gallons, 13,524,000 gallons of isobutane against 13,230,000 gallons, 61,194,000 gallons of liquefied petroleum gases against 66,192,000 gallons, 16,674,000 gallons of liquefied refinery gas against 12,054,000 gallons and 8,400,000 gallons of benzol, unchanged.

Stocks at refineries increased during the month from 109,662,000 to 112,980,000 gallons but those at plants and terminals dropped from 107,856,000 to 104,076,000 gallons, a net loss of 462,000 gallons, it was shown.


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# Stocks of Light Fuels Increase But Heavy Fuels and Gasoline Decline; Production Up

Reflecting a seasonal low in demand and following the steady trend of recent weeks, production of light fuel oils reached a new high this week with 898,000 barrels more daily than last week, bringing total stock accumulations to 40,299,000 barrels. Stocks of heavy fuels and gasoline declined, but daily production of crude oil continued to increase.

Steady growth in stocks of light fuel oils over the past several weeks is normal due to efforts to build the supply as much as possible before cold weather begins when heavy use of this type of oil will prevail throughout the East. It has been the aim of PAW to build up sufficient reserves of heating oil to supply 75 percent of the normal requirements at least, a percentage attained last winter. As compared with a year ago, total stocks are 4,143,000 barrels off, the supply being 44,442,000 barrels on September 19, 1942.

Consumption of residual oils continues to increase and in spite of a gain in output for the week amounting to 174,000 barrels daily, stocks dropped 118,000 barrels reducing the total to 66,893,000 barrels as compared with 67,011,000 barrels last week. A year ago stocks of this type of oil stood at 79,335,000 barrels.

Continued heavy demand for gasoline brought further reduction in total stocks amounting to 629,000 barrels, the fact that total production of gasoline was up 130,000 barrels notwithstanding. This gain was made in spite of a 7000-barrel drop in runs to stills.

Eastern Seaboard index of civilian supplies of gasoline, light and heavy fuel oils, gained however, and stood at 42.5 percent as contrasted with 41.9 percent last week.

The 7000-barrel loss in runs to stills reduced refinery operations to 87.2 percent of capacity this week against 87.4 percent last week. Prolonged storm warnings in the Gulf Coast area last week probably accounted for this as some plants were closed down for a few days. These warnings hampered movements of oil to the East also, and undoubtedly affected refinery operations there. The estimated loss of oil moving to the east was put at 400,000 barrels by PAW.

The phenominal rise in demand for gasoline is emphasized by the fact that with refineries now operating at 87.2 percent capacity and using 4,209,000 barrels of crude oil daily, stocks show a decline of 5.1 percent for the year so far, whereas at the same time last year, total runs to stills averaged only 3,740,000 barrels daily, with stocks showing a gain of 2.8 percent for the year.

Total crude production gain for the week was 22,000 barrels a day more than last week. Increases were distributed generally throughout all territories, but principal gains were from Texas, Kan-

## Crude Oil Production in the United States

(Estimates compiled by The OIL WEEKLY. All figures indicate daily averages, in barrels)

| STATE OR DISTRICT | PRODUCTION IN WEEK ENDED | |
|---|---|---|
| | September 25 | September 18 |
| Arkansas | 77,350 | 76,650 |
| California | 789,750 | 783,100 |
| Long Beach | 30,750 | 31,500 |
| Midway-Sunset | 54,700 | 54,950 |
| Kettleman Hills | 43,450 | 41,700 |
| Wilmington | 93,300 | 94,100 |
| Rest of State | 567,550 | 560,850 |
| Colorado | 7,500 | 6,950 |
| Illinois | 215,400 | 217,450 |
| Salem | 28,100 | 28,950 |
| Louden | 37,600 | 35,150 |
| Other New Pools | 138,150 | 142,350 |
| Old Pools | 11,550 | 11,000 |
| Indiana | 15,000 | 14,100 |
| Kansas | 296,150 | 296,900 |
| Kentucky | 23,200 | 22,700 |
| Louisiana | 361,250 | 360,850 |
| North | 82,450 | 82,200 |
| South | 278,800 | 278,650 |
| Michigan | 58,550 | 59,050 |
| Mississippi | 48,850 | 48,800 |
| Missouri | 95 | 95 |
| Montana | 22,180 | 22,100 |
| Nebraska | 1,800 | 1,800 |
| New Mexico | 109,500 | 109,500 |
| New York | 14,950 | 14,250 |
| Ohio | 8,950 | 8,450 |
| Oklahoma | 325,250 | 327,350 |
| Oklahoma City | 53,750 | 54,500 |
| Seminole Area | 72,650 | 72,900 |
| Rest of State | 198,850 | 199,950 |
| Pennsylvania | 43,250 | 43,500 |
| Tennessee | 30 | 30 |
| Texas | 1,838,900 | 1,838,300 |
| Upper Gulf Coast | 485,500 | 485,400 |
| East Texas Field | 380,250 | 380,150 |
| Rest of Eastern Texas | 131,350 | 130,600 |
| Lower Gulf Coast | 169,500 | 170,050 |
| Southwest Texas | 75,150 | 75,050 |
| South Central Texas | 19,250 | 19,300 |
| West Texas | 333,350 | 333,300 |
| North Texas | 140,650 | 140,450 |
| Panhandle | 103,900 | 103,900 |
| Utah | 30 | 30 |
| West Virginia | 9,250 | 7,900 |
| Wyoming | 104,400 | 99,000 |
| Total United States | 4,371,585 | 4,358,755 |

## Trends of Operations and Changes in Stocks

Figures on crude stocks are from Bureau of Mines weekly reports; all others from American Petroleum Institute weekly reports, which are estimates on Bureau of Mines basis.

(All figures in thousands of barrels—add 000)

HIGHS AND LOWS OF RECENT YEARS

| ITEM | Crude Oil Prod. | | Runs to Stills | | Crude Stocks | | Gasoline Stocks | | Gas Oil & Distillate Stocks | | Residual Fuel Oil Stocks | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Barrels Daily | Week Ended | Barrels Daily | Week Ended | Barrels | Week Ended | Barrels | Week Ended | Barrels | Week Ended | Barrels | Week Ended |
| Highs: | | | | | | | | | | | | |
| 1939 | 3,910 | 8- 5 | 3,650 | 10-21 | 278,607 | 5-26 | 87,769 | 4-22 | 39,562 | 10-28 | 116,237 | 8-26 |
| 1940 | 3,890 | 3-16 | 3,690 | 6-22 | 265,865 | 8-31 | 102,817 | 4-20 | 49,051 | 10-19 | 109,135 | 9-14 |
| 1941 | 4,337 | 11-22 | [4]4,120 | 10-18 | 266,187 | 3-29 | 99,727 | 3-29 | [5]54,983 | 11-15 | 102,448 | 1- 4 |
| 1942 | 4,337 | 2- 7 | 3,961 | 1- 3 | 263,208 | 3-28 | [1]109,281 | 3-14 | 49,861 | 11-14 | 95,857 | 1- 3 |
| 1943 | [4]4,376 | 9-18 | 4,227 | 8-28 | 245,752 | 5-29 | 94,159 | 3-20 | 42,913 | 1- 2 | 72,881 | 1- 2 |
| Lows: | | | | | | | | | | | | |
| 1939 | [3]1,601 | 8-26 | 3,125 | 2-18 | [2]229,127 | 10-12 | 71,152 | 10- 7 | 20,722 | 4-15 | 105,397 | 4- 8 |
| 1940 | 3,335 | 11-30 | 3,370 | 1- 6 | 237,339 | 1-27 | 79,847 | 11- 9 | 23,551 | 4- 6 | 102,344 | 2-10 |
| 1941 | 3,364 | 1-11 | 3,490 | 1-18 | 240,399 | 11-15 | 79,923 | 10- 4 | 28,381 | 4-12 | 90,914 | 7-12 |
| 1942 | 3,297 | 7- 4 | 3,393 | 5-23 | 231,896 | 12-12 | 75,934 | 12- 5 | 29,240 | 4-25 | 72,962 | 12-26 |
| 1943 | 3,821 | 1- 9 | 3,579 | 3-13 | 232,191 | 1- 9 | 71,299 | 9-18 | 30,732 | 4- 3 | 66,448 | 8-14 |

TRENDS OF 1942 AND 1943

| Trends in Week Ended: | Crude Oil | | | Gasoline | | Gas Oil & Distillate | | Residual Fuel | |
|---|---|---|---|---|---|---|---|---|---|
| | Production Daily | Runs to Stills Daily | Stocks Week End | Production Weekly | Stocks Week End | Production Weekly | Stocks Week End | Production Weekly | Stocks Week End |
| 1942: | | | | | | | | | |
| January 3 | 4,038 | 3,961 | 244,440 | 13,797 | 92,987 | 3,855 | 49,357 | 6,918 | 95,857 |
| January 31 | 3,871 | 3,848 | 250,740 | 13,292 | 97,810 | 3,817 | 40,674 | 6,640 | 91,189 |
| February 28 | 4,016 | 3,675 | 259,373 | 12,131 | 105,635 | 3,799 | 34,547 | 6,813 | 88,285 |
| March 28 | 3,820 | 3,667 | 263,208 | 11,663 | 105,624 | 3,661 | 31,756 | 6,344 | 83,045 |
| April 25 | 3,581 | 3,506 | 257,073 | 10,535 | 102,897 | 3,267 | 29,240 | 6,869 | 81,107 |
| May 30 | 3,877 | 3,522 | 255,023 | 10,478 | 95,355 | 3,034 | 31,384 | 6,993 | 79,628 |
| June 27 | 3,719 | 3,581 | 253,364 | 10,713 | 88,396 | 3,549 | 32,851 | 6,615 | 77,304 |
| July 25 | 3,691 | 3,658 | 249,262 | 10,864 | 82,281 | 3,647 | 35,966 | 6,796 | 77,816 |
| August 29 | 3,964 | 3,697 | 249,007 | 11,300 | 80,831 | 3,850 | 42,060 | 6,875 | 78,034 |
| September 26 | 3,909 | 3,802 | 242,785 | 10,954 | 80,550 | ..... | 45,945 | ..... | 78,943 |
| October 31 | 3,901 | 3,731 | 239,266 | 11,153 | 79,159 | ..... | 48,131 | ..... | 79,166 |
| November 28 | 3,878 | 3,736 | 234,850 | 11,269 | 78,854 | ..... | 49,739 | ..... | 77,796 |
| 1943: | | | | | | | | | |
| January 2 | 3,871 | 3,734 | 233,938 | 10,957 | 82,420 | 4,285 | 42,913 | 7,683 | 72,881 |
| January 30 | 3,826 | 3,698 | 233,863 | 10,339 | 88,830 | 3,888 | 37,057 | 7,452 | 70,763 |
| February 27 | 3,873 | 3,709 | 235,217 | 10,566 | 93,157 | 4,230 | 32,939 | 7,839 | 70,140 |
| March 27 | 3,896 | 3,742 | 239,126 | 10,231 | 94,079 | 3,541 | 30,980 | 8,018 | 67,938 |
| April 24 | 3,913 | 3,737 | 242,035 | 10,583 | 91,001 | 3,954 | 31,142 | 8,168 | 67,455 |
| May 29 | 3,970 | 4,679 | 245,752 | 10,656 | 83,937 | 3,798 | 32,274 | 7,672 | 67,682 |
| June 26 | 3,955 | 4,015 | 242,657 | 11,092 | 79,589 | 3,876 | 34,044 | 8,126 | 67,960 |
| July 31 | 4,133 | 3,788 | 238,420 | 11,127 | 74,977 | 3,765 | 36,363 | 8,478 | 66,877 |
| August 28 | 4,196 | 4,227 | 236,170 | 12,420 | 72,525 | 4,351 | 37,928 | 8,732 | 67,250 |
| September 4 | 4,235 | 4,214 | 234,635 | 12,343 | 71,402 | 4,361 | 38,673 | 8,703 | 67,675 |
| September 11 | 4,354 | 4,216 | 234,389 | 12,606 | 71,928 | 4,162 | 39,401 | 8,350 | 67,011 |
| Sept. 18, 1943 | 4,376 | 4,299 | ..... | 12,736 | 71,299 | 4,420 | 40,299 | 8,524 | 66,893 |
| Sept. 19, 1942 | 3,936 | 3,740 | [4]244,671 | 11,097 | 79,077 | 4,215 | 44,442 | 7,094 | 79,335 |
| Change: | | | | | | | | | |
| In week | +22 | —7 | —246 | +130 | —629 | +258 | +898 | +174 | —118 |
| In year | +540 | +469 | —12,553 | +1,639 | —7,778 | +205 | —4,143 | +1,430 | —12,442 |
| In year | +13.7% | +12.5% | —5.1% | +14.8% | —9.8% | +4.9% | —9.3% | +20.1% | —15.7% |

[1] All time peak. [2] Lowest since April, 1922. [3] Lowest since October, 1922, due to shutdown of six Mid-Continent States. [4] Stocks, September 12, 1942.

BACK THE 3rd WAR LOAN

**Uncle Sam needs 15 billion dollars this month to help pay for INVASION—to get the money to keep our boys going—and there is no other way out. We will have to sacrifice this time—give up a lot of the little things we are now doing—and dig up that extra money.**

**And remember—it's an investment you are making—the soundest in the world—for Uncle Sam promises to pay you the full amount on demand with a good rate of interest.**

*Manufacturers of Rotary Drilling Tools for the essential Oil Industry.*

ROCK BITS • TOOL JOINTS • CORE DRILLS • REAMERS
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HOUSTON, TEXAS

sas, Kentucky, Wyoming and New Mexico. Most of the gains resulted from increased quotas set by PAW for September, and do not reflect important new developments. This trend has been continuous since the first of the year, resulting in a total increase from January until the present, of 13.7 percent over the same period last year.

### Gulf Posts Price Adjustment For South Louisiana Crudes

The following schedule of prices has been listed by Gulf Refining Company, Crude Oil Purchasing Division, for crude from Grand Bay, Quarantine Bay, Timbalier Bay, West Bay, and Bayou Couba, Louisiana:

| | |
|---|---|
| Below 28 | $1.12 |
| 28-28.9 | 1.14 |
| 29-29.9 | 1.16 |
| 30-30.9 | 1.18 |
| 31-31.9 | 1.20 |
| 32-32.9 | 1.22 |
| 33-33.9 | 1.24 |
| 34-34.9 | 1.26 |
| 35-35.9 | 1.28 |
| 36 and above | 1.30 |

Posting for Bayou Couba is an initial posting which is subject to the disapproval of OPA.

### United States Crude Output Attains Another New Peak

United States production of crude oil soared to another new all-time peak during the week ended September 25, when output averaged 4,371,585 barrels daily. This was 12,830 barrels higher than in the preceding week, which had established a record level. The increase was the result of minor gain in several states.

Wyoming production averaged 104,400 barrels daily in contrast with 99,000 barrels the preceding week. California produced 789,750 barrels per day, compared with 783,100 barrels a week ago. Louisiana jumped from 360,850 barrels to 361,250 barrels. Texas production varied only slightly, rising 700 barrels per day to 1,838,900 barrels. West Virginia rose from 7900 to 9250 barrels.

Oklahoma, Illinois and Kansas had registered less production. Oklahoma produced 325,250 barrels daily compared with 327,350 barrels last week. Illinois produced 215,400 barrels, in contrast with 217,450 barrels. Kansas dipped 750 barrels to 296,150 barrels per day.

## PIPE LINE REVIEW

### Texas-Appalachian Area Gas Line Approved by WPB

A 24-inch line, to deliver 207 million cubic feet of Texas Gulf Coast gas daily to the Appalachian industrial area, has been approved by WPB, to meet wartime fuel shortage. The 1200-mile line, estimated to cost $55,000,000, has been promised the necessary priorities to enable completion before the winter of 1944-45.

The approval was given the Tennessee Gas & Transmission Company, in which The Chicago Corporation, with large gas holdings in the Corpus Christi area, has recently become interested. The company has until October 1 to begin placing orders for materials, construction and stations, under limitations imposed by WPB's action whereby the approval was issued. According to a statement issued by Gardner Symonds, newly elected president of the Tennessee company, present plans call for at least eight pipe-line construction spreads and a river-crossing crew. Construction headquarters of the new line are to be opened in Houston, with Symonds and Ray C. Fish, operating vice president, in charge.

Any possible further action on the possibility of the line proposed by Hope Natural Gas Company from the Hugoton field to West Virginia has been postponed until the deferred hearing on such application, now slated for October 5.

### Magnolia Asking Bids On Line from West Texas

Magnolia Pipe Line Company has asked for bids from pipe-line contractors for construction of its recently approved 336-mile 12-inch auxiliary Permian Basin outlet from Midland, Texas, to Corsicana, and parallel to a looped 8-inch carrier. The project also involves the laying of two loops, aggregating 46 miles, south from Seminole and northwest from the Midland terminal, permitting movement of 41,000 barrels daily from the north portion of the Permian Basin.

Construction of the 12-inch carrier will begin upon receipt of first pipe about November 1. This large unit will have a capacity of 42,000 barrels daily, using three stations between Midland and Corsicana, but may be stepped up to 60,000 barrels through the use of six or seven stations. It is scheduled to be in service by March 1, and considerable space will be used by other West Texas pipe line companies that have reached capacity loads on their own lines.

### West Texas Feeder Line Completed

Sunray Oil Company has completed a five-mile four-inch oil line from Northwest Slaughter pool, Cochran County, to the Slaughter field, where connection is made with Magnolia Pipe Line Company's system. Sunray Oil Company will proceed with the development of its holdings.

### Stanolind Building Tanks In Preparation for Line

Stanolind Pipe Line Company has started building grades for erection of 5 80,000-barrel second-hand tanks in the Slaughter field to provide a backlog of oil pending the completion of its 383-mile 16-inch line to Drumright, Oklahoma. Field tankage will be on the company's gathering station site, centering upon labors 75 and 76, league 37. Zavalla County School Lands, Hockley County. Three 80,000-barrel tanks will be installed at Drumright one at Sycamore, Kansas, and three at Freeman, Missouri.

Right-of-way survey has been completed and first pipe is due in October, with March 1 tentatively set for completion date.

Using a booster on the field end, and an intermediate station at Bretch Siding, near Hobart, Oklahoma, this line will have a minimum capacity of 54,000 barrels daily.

### Federal Pipe Line Tax Shows Increase in August

Treasury revenue from the federal tax on gasoline during the first eight months of this year dropped more than $57,500,000 under the corresponding period in 1942, but receipts from the lubricating-oil tax increased $4,100,000 and collections on pipe-line transportation showed a $46,000 increase, it was disclosed September 23 by the Internal Revenue Bureau.

August collections on gasoline, the bureau reported, dropped to $23,097,568 from $26,365,208 in July and $28,662,169 in August, 1942, but receipts from lubricating oil increased to $4,790,321 from $4,294,413 in the preceding month and $4,081,517 in the corresponding month last year. Revenue from pipe-line transportation was $1,592,993, the highest figure touched since July, 1940, compared with $1,202,502 in July and $1,304,985 in August, 1942.

For the eight months ended with August, it was shown, gasoline-tax collections aggregated $169,142,407 against $226,685,369 last year, while lubricating-oil taxes totaled $32,737,628 against $28,610,558, and pipe-line taxes were $9,250,712 against $9,204,597.

### Humble Gets Contract To Build Another Plant

Execution of a contract with the Humble Oil & Refining Company for provision of plant facilities in Texas for the Defense Plant Corporation, at a cost of approximately $2,750,000, was announced September 20 by Secretary of Commerce Jesse Jones. The company is to operate the facilities, title to which will remain in the government.

Jones also announced an increase in the Defense Plant Corporation's contract with the United States Rubber Company, to provide additional equipment at a plant in Rhode Island at a cost of approximately $335,000. The expanded contract will bring the over-all commitment on the product to approximately $1,890,000.

### Illinois-Indiana-Kentucky Get Priority Assistance

Oil producers in the Tri-State area (Illinois and parts of Indiana and Kentucky) who, under PAO No. 11 (originally WPB M-68) were permitted to drill wells without formality provided they had or were able to secure the necessary casing and tubing without assistance, hereafter will be given priorities assistance in obtaining those commodities, under Supplementary Order No. 5, issued by PAW September 21.

Exhaustion of much of the material available under the original order was responsible for the decision to provide priorities.

All former provisions with respect to spacing and other requirements which must be met are retained with the exception of the necessity for filing the completion reports previously required on wells drilled under the order.

# We must be VIGILANT

Vigilance means alertness in the keenest sense of the word; and, never before in the history of this country has it been more necessary to be alert—alert to ill founded rumors—alert to the vital needs of our fighting forces—alert to lethargy and complacency which retards production.

Specifically important, though, is alertness to the condition of your motors. If properly maintained they will keep right on the job without a let-down, day after day, and year after year.

If you have not already done so establish a dated maintenance schedule now. Check the clearance, bearings, contact fingers, control equipment, oil in distribution transformer of your motors; and be sure to varnish the coils. Be vigilant—it pays!

Utility ELECTRIC POWER

## PROPER MAINTENANCE WILL KEEP 'EM TURNING

*Use Utility Electric Power!*

PETROLEUM ELECTRIC POWER ASSOCIATION

Box 1198, Oklahoma City, Oklahoma

# International Developments

## China Developing a Liquid Fuel Industry

Development of the liquid-fuel industry in China, with emphasis on petroleum products, is one of the outstanding projects of the Chinese National Resources Commission.

Oil fields in Kansu were geologically surveyed in 1934 and 1937. Prospecting was started by the commission in 1938 and drilling in 1939. Fourteen wells have been sunk, all producing oil. More wells will be sunk when new equipment can be obtained. Two refineries have been established; both produce gasoline, some paraffin and diesel oil.

Production of alcohol and other gasoline substitutes is also being undertaken by the commission, which now operates 10 alcohol plants: 5 in Szechuan and 1 each in Yunnan, Kweichow, Kansu, Shensi, and Siakiang. It is reported these plants can produce more than 3,000,000 gallons of ethyl alcohol a year.

A vegetable oil-cracking plant, the first of its kind in China, has also been set up in Chungking, where tung (or wood) oil is treated for production of petroleum substitute and diesel oil. It also produces lubricating oils of various grades.

The commission has established a low-temperature coal-distillation plant in Western Szechuan, where bituminous coal of satisfactory quality has been found in large quantities. This plant is producing diesel oil, crude phenol, and semi-coke in addition to a petroleum substitute which is claimed to possess a high octane number and to be good for aviation.

## Mexico Has Produced 2,722,023,000 Barrels

All-time petroleum production in Mexico, through August of this year, has totaled 2,722,023,000 barrels, according to Manuel Alvarez, of Petroleos Mexicanos, who is touring Texas oil fields to observe American production methods. Production south of the Rio Grande was initiated in 1904, when fields in the Panuco region were opened. Alvarez presented his estimate in a recent talk before oil geologists in Dallas.

## Vermilion Field Expands Rapidly

The Vermilion field, which started from scratch in 1939 when the discovery well was placed on production and which to date has produced more than 23,958 barrels, is now expanding at a fairly rapid pace and arousing the attention of oil interests in the United States as well as Canada.

So far this year 21 wells have been drilled and a substantial drilling program is lined up for the remainder of this year.

The Vermilion area for a time remained almost static, until a drilling and production technique had been worked out. The field has now established itself as a good shallow producer and certain directional production trends have been established.

Vermilata Oil Company's Grande Prairie 1, completed a few days ago after less than a week's drilling time, will be put on production immediately. Necessary casing for the three other wells to be drilled by Vermilata has been shipped. General Petroleums Company, drilling these 4 wells for Vermilata, will resume drilling again in about two weeks. P. D. Bowlen, formerly president of Texas Canadian Oil Company, is in charge of operations for Vermilata.

## Fort Norman Oil Beats Estimates

New drillings and explorations for oil in the Canadian Northwest Territories are under way to expand northern petroleum production for military operations from Alaska.

Imperial Oil Company already has increased its production of the only oil being recovered in the Arctic, and has met the initial United States Army requirements.

The army previously had announced virtual completion of a pipe line from producing areas near Fort Norman in Whitehorse, Yukon Territory, where refinery facilities await the oil.

In developing the field at the army's direction, Imperial said in a statement, Fort Norman has been found "substantially larger than estimated," although not exceptional compared with American fields.

"Most, but not all, of the new wells drilled have produced oil," it added. Actual capacity of the field was kept secret.

J. L. Irwin, statistician of the Alberta Department of Lands and Mines, recently released the following figures on Fort Norman production: 23,664 barrels for all of 1941; 82,324 barrels for all of 1942; 89,929 barrels for the first six months of 1943.

Boundaries of this oil-producing area are still unknown.

## New Canadian Field at Ram River Indicated

An offset well is to be started immediately by Ram River Oils, in the Ram River section of Alberta, Canada. Officials of the company say that with acidization completed at the Ram River well and the presence of oil and gas in promising quantities established, plans for further drilling would be placed under way at once in search for greater oil production on their largely increased acreage.

Russell V. Johnson, geologist for the company, will go to the field to locate two new wells, No. 3 to be drilled immediately, and No. 4 following at a convenient period.

At No. 2, while the existence of a high pressure zone has been demonstrated, the size of the hole makes further experimental work difficult. This hole was completed with 1.96-inch casing. It has blown oil and gas in convincing fashion making further drilling of the field inevitable.

I. B. Howatt, president, and Cyril Perry, director, of Ram River Oils, express full confidence that a major body of crude oil had been located. The oil tested 40.1 A.P.I., and has a high percentage of lubricating oil.

## Colombia Output Up With Increased Demand

Current and prospective production above pre-war rates is indicated for Colombia, in the program for drawing more heavily on sources of supply in the Caribbean area.

In producing approximately 2,450,000 barrels of crude in June of this year, Colombia had stepped output up to a near-record level, following a sharp expansion in each succeeding month this year.

With storage facilities full and very little shipping space available, Colombia's production was severely curtailed in 1942, and amounted to only about 6000 barrels per day in November and December, 1942.

In 1941, when crude was being moved out in comparatively good volume, to Canada and the United States, annual production totaled 24,400,000 barrels, an average of a little over 2,000,000 barrels per month.

However, the country was hard hit by the diversions and sinkings of tankers of the United Nations in 1942, and production for the year was only about 10,600,000 barrels, or less than half the quantity of 1941.

Destined to increase Colombia's status as an oil-producing area are the two new fields opened by the Shell interests, namely, Casabe and El Dificil. Casabe field, found last year, across the river from Tropical Oil Company's refinery at Barranca Bermeja, now has 10 wells and is rated as a reserve of 135,000,000 barrels. The Casabe field is in the same vicinity as the Infantas and La Cira fields of Tropical Oil Company.

## Prospecting Is Scheduled for Northern Mexico

Petroleos Mexicanos, the Mexican government oil company, is giving attention to the exploration for new fields in Northeastern Mexico, adjacent to the Texas border, where there are numerous promising prospects, which have been drilled only to limited extent. Prior to the expropriation in 1938, various companies had carried out extensive geological and geophysical work in the region.

Petroleos Mexicanos has been granted a permit by the Ministry of National Economy to explore on 75,000 acres between Reynosa and Nuevo Laredo, state of Tamaulipas, along the Texas border. The region is along the Rio Grande, and is not far from some of the South Texas oil fields.

The Mexican company is hoping to develop both gas and oil production. Some gas wells were completed in the district by the private companies.

## Colombia's Socuavo Field on Barco Extended to East

Colombian Petroleum Company's Socuavo field on the Barco concession in Colombia has just been extended eastward by a 500-barrel well. This is one of the newer fields of the large concession, having been discovered about a year ago. It has several producing wells, yielding high-gravity oil.

# AQUAGEL

## OVERCOMES MANY DRILLING DIFFICULTIES

AQUAGEL has been used for many years in both rotary and cable tool drilling to overcome drilling difficulties from grass roots to completion.

When spudding in, AQUAGEL controls surface water, checks caving and consolidates loose formations. The thin mud cake which AQUAGEL provides is particularly advantageous when cementing casing because a tighter bond between casing and hole is effected and there is less chance of water intrusion. When there is a thick cake on the walls of the hole there is greater probability of water channelling between the walls of the hole and the cement. When water sands separate oil sands, this is particularly important.

When AQUAGEL is used, no mud change is necessary when entering the producing zone because of its low water loss. When cleaning up, the thin AQUAGEL filter cake disintegrates easily into small, fragile pieces which readily swab through the liner. Its quick removal from the face of the formation exposes all the oil sand. Swabbing is reduced and higher potentials are realized.

## MAKES STRAIGHT DRILLING SAFER, FASTER, MORE ECONOMICAL

AQUAGEL extends the interval of straight drilling. Lost circulation, and heaving and sloughing caused by water infiltration are reduced to a minimum. AQUAGEL is economical because it yields about 100 barrels of mud per ton. This high yield means less to carry, less to store and less to handle. After completion, spare sacks of AQUAGEL can be easily and quickly moved to another location without loss.

Patent Licenses, unrestricted as to sources of supply of materials, but on royalty bases, will be granted to responsible oil companies and operators to practice the inventions of any and/or all of United States Patents Nos. 1,807,082; 1,991,637; 2,041,086; 2,044,758; 2,064,936; 2,094,316; 2,119,829; 2,214,366; 2,294,877; 2,304,256 and further improvements thereof. Applications for Licenses should be made to Los Angeles office.

**BAROID SALES DIVISION**
**NATIONAL LEAD COMPANY**
BAROID SALES OFFICES: LOS ANGELES • TULSA • HOUSTON

BAROID PRODUCTS . . . BAROID and COLOX, AQUAGEL, FIBROTEX, BAROCO, STABILITE, AQUAGEL-CEMENT, CEMENTOX, IMPERMEX, ZEOGEL, MICATEX, ANHYDROX, TESTING EQUIPMENT, BAROID WELL LOGGING SERVICE

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## Alberta Plans Laws To Regulate Gas Output

Legislation will be introduced in the next session of the Alberta legislature to make the natural gas markets available to all producers and put an end to the present forced waste of gas throughout Turner Valley field, Premier Manning declared in an address recently.

The proposed legislation would require Royalite Oil Company operating in Turner Valley to "gather and use or restore to the structure, as far as possible, all the gas produced in the field, and further to make it possible for all producers in the field to share pro rata in the available gas market," Manning asserted.

Speaking on the natural resources of the province, the premier said Royalite has been over-producing its wells and this now has been sanctioned by the government for the time being.

"Had the government forced the Royalite wells' production to be reduced, it would have resulted in restriction of a product necessary for war purposes and later would have left the city of Calgary without an adequate supply of gas.

"The government authorized Royalite to overproduce at present but all such overproduction is to be treated as belonging to all producers in the field."

Manning said "This recent development constitutes a final show-down on the question of who is in control of the resources of this province."

The government policy in regard to oil in Turner Valley precludes all possibility of any monopoly getting control of even an acre of the natural resources, he stated.

The government is doing everything possible to encourage the orderly development of the natural resources; to maintain an effective conservation program to prevent waste and unwarranted depletion of these resources; to retain at all times on behalf of the people full control over the policy under which the development is carried out; to retain at all times the right to determine the amount of rental and royalty to be paid, thereby assuring that the people as a whole will receive a fair return from the development of their resources.

The premier scored those who suggest the government should create a state monopoly of the natural resources.

## Alberta With More Drilling, Has Less Oil

With the spudding of six new wells in areas other than Turner Valley in Alberta, the total number of drilling wells in the province has been boosted to a new record of 32, according to the conservation board.

The 6 wells are Bidgood 1, Cannar 14 and 15, in the Vermilion field; and Kinsella 16 at Kinsella; Medicine Hat 63, at Medicine Hat and Taber C. P. R. 31-19B at Taber. The Kinsella and Medicine Hat wells are located in strictly gas fields.

A year ago at this time only 25 wells were being drilled in Alberta, and the majority were located in Turner Valley. Now there are 16 wells drilling in the valley and 16 in outside areas.

Present production totals 26,948 barrels of oil daily compared with 27,054 barrels a year ago.

## Alberta Drilling Sets Record During 1942

Nearly 100 miles of hole—the distance by rail from Calgary to Red Deer—were drilled in search of oil in Alberta in 1942, it was disclosed in the Imperial Oil Bulletin recently.

This extensive drilling set a new all-time record in the history of Canadian oil-well drilling.

The total 1942 footage of 501,940 feet comprised 250,975 feet in Turner Valley and 250,965 feet in wildcat areas of the province.

The 1942 total compared with 496,335 feet in 1941; 371,047 feet in 1940; 374,287 feet in 1939; 363,292 feet in 1938; 279,379 feet in 1937; and 96,904 feet in 1936. It was not until 1936, when Turner Valley Royalties made the big discovery crude strike, that Turner Valley drilling got underway in a "big way."

In the past seven years, 2,483,184 feet of hole or 470 miles —about the distance from Calgary to Regina—were drilled in the province. The seven years' footage for Turner Valley was 1,796,711 and that for wildcat area 686,743.

Maxmount 1, about 25 miles west of McLeod reached a depth of 9430 feet last year and is believed to be the deepest hole in the world drilled with a cable tool rig. Deep Turner Valley wells, sometimes carried down to 10,000 feet, are drilled with rotary equipment.

# U. S. Field Operations

## Illinois

### Golden Gate Extension Flows 2,000 Barrels Daily

The outstanding oil development in Illinois this week was the initial success of National Refining Company's Lawrence 1, SE NE SE 32-2s-9e, ¾ mile south of production in the Golden Gate pool of Wayne County.

The well was estimated as a 2000-barrel McClosky lime producer after plug was drilled and it flowed 1000 barrels in 9 hours, flowing natural and showing no water. The well was shut in after it filled the storage tanks to await new connections, and on subsequent test made 2000 barrels in 24 hours, through 1¼-inch choke. Sohio was forced to install a 175-barrel pumping unit on the line instead of the original 60-barrel unit. Plug was drilled at 3314 feet. Acreage in the immediate area is owned by Cities Service Oil Company, Bell Oil & Gas Company and Central Illinois Pipe Line Company.

**Edwards County:** First National Petroleum Trust's Brown 1, S½ SW SW 6-2s-11e, is hailed as the best prospective pool opener in Illinois in several months and it is now drilling plug to test Aux Vases sand saturation at 3005-30 feet. On a drill-stem test, the well made gas in 7 minutes and yielded oil in 10 minutes. The drill was still in pay when the decision to set pipe at 3000 feet was made.

**White County:** White County had two possible pool openers this week to keep the recently bright picture in Illinois alive. Skelly Oil Company's Ramming 1, SW SE NE 24-5s-10e, recovered oil in two drill-stem tests of McClosky lime and probably will open a small pool. The first test at 3001-49 feet, recovered 375 feet of oil and 50 feet of oil-cut mud. The second test at 3091-98 feet, showed 210 feet of oil-cut mud and some water. Casing was set on bottom at 3120 feet for test through perforations.

The other White County prospect was Gulf Refining Company's Connery 1, SE SE NW 1-5s-8e, which is waiting on cement to test Aux Vases sand at 3186-3218 feet. The well showed 125 feet of oil and the same amount of oil-cut mud on a drill-stem test.

**Jefferson County:** J. H. Williams' Dalton Community 1, SE SW 13-2s-4e, 3 miles from production in the Bluford area, swabbed 650 barrels of oil from McClosky lime after a 2000-gallon acid treatment and is shut in for tank room.

**Hamilton County:** National Associated Petroleum Company's York Tibbs 1, NE NE NW 35-4s-7e, has opened a new Aux Vases sand pool in the Bungay area of Hamilton County. The well flowed 628 barrels in 24 hours, plus 2 percent water, and was shut in for tank space. Total depth of the well is 3314 feet.

**Richland County:** R. B. Martin's Boyd 1, S½ SE SW 22-2n-10e, in south Madison township near the Edwards County line, has been completed for a pool opener in the McClosky lime. On official tests, the well made 340 barrels of fluid, 13 percent water, after 2000 gallons of acid.

**Effingham County:** C. E. Stout is drilling plug at Bushue 1, SW NW 16-6n-6e, to test McClosky lime, which promises to open a new pool 4½ miles east of the Mason pool. The well is expected to make 150 barrels daily, based on a drill-stem test at 2571-83 feet.

## Indiana

### Pools Opened in Posey And Gibson Counties

Two discovery wells were completed in Indiana last week, one in Posey County, the other in Gibson County.

A. C. Thomas completed F. A. Bailey 1, C SW SE 28-4s-13w, to open the Reyburn pool in Posey County. The well made 150 barrels per day on pump from Waltersburg sand at 2183-97 feet. Total depth was 2215 feet.

In Gibson County, George and Rather opened a pool, yet un-named, with Charles McLin 1, NE NW SE 4-1s-12w, which pumped 40 barrels daily from Cypress sand at 1982-93 feet, the latter figure total depth.

Operations in Indiana totaled 71, of which 25 were locations, one was rigging tools, 36 were drilling and 9 were inactive. First reports totaled 5. Twenty-six wildcat operations were recorded and they included 12 locations, 10 wells drilling, 3 inactive tests and 1 rigging tools. Wildcat first reports totaled 2.

The state saw completion of 6 oil wells for total initial production of 445 barrels. Eight holes were dry and 2 locations were abandoned.

## Kentucky

### Second Sand Produces In Webster County Field

Western Kentucky's important development last week was the discovery of a new pay horizon in the Pratt pool of Webster County.

Southern Petroleum Company, which discovered the pool with pay in the Tar Springs sand, has completed Sellers 2, 14-N-24, in the Cypress sand at 2244 feet with total depth 2725 feet. The well was completed for 15 barrels of oil and 10 barrels of water daily on pump.

The state had 75 operations for the week and they included 7 locations, 10 wells rigging tools, 55 wells drilling and 3 inactive tests. First reports totaled 13. Thirty wildcat tests were in various stages, including 25 wells drilling, 3 locations, and 2 tests rigging tools. First reports totaled 3.

Ten producing wells were completed with total initial production of 1174 barrels of oil daily. Eleven holes were dry.

#### Oil Is Ammunition

The amount of oil and oil products shipped to war fronts during the first 12 months of this war equals 80 times the amount of oil and oil products shipped to war fronts the first 12 months of World War I.—WRIGHT D. PATMAN, *member of House of Representatives from Texas.*

## Kansas

### One New Field Opened; One Old Area Revived

A new field has been indicated south of Bredfeldt production where Phillips Petroleum Company's Volkland 1, NE SW 27-18-9w, Rice County, in an area of spotted production, found top of Arbuckle saturated and filled 3000 feet in two hours. The test topped the lime at 3234 feet and drilled to 3276 feet, still in the pay. To the east of the location, some abandoned wells had fair gas volumes in the pay.

**Rooks County:** Stockton field, which has been dormant recently, has been given new life by Consumers Co-Operative Oil Association's Kelly 1, 35-7-17w, at the edge of the area. The test earned an initial potential of 84 barrels from Kansas City-Lansing lime at 3106 feet. While the completion is not an exceptional well, it may spur other extension efforts in the same pay.

National Associated Petroleum Company's Highley 1, C NE NE 2-8-20w, a wildcat at the western edge of the county, continues testing shows in Kansas City-Lansing lime which has been acid treated through perforations between 3043 and 3292 feet.

**Russell County:** Trapp pool has been extended 3-40-acre locations to the east at Pryor & Lockhart's Flegler 1-B, C NE NW 29-18-3w, which has been granted a state potential of 825 barrels.

**Ellis County:** Coralena Oil Company's Foster 1, NE NW SW 1-15-16w, a wildcat, is incomplete but testing shows in Kansas City-Lansing lime at 3368-3372 feet. Arbuckle returned only a non-commercial show.

## Oklahoma

### Two Wildcats Showing; Others Encouraging

Sinclair Prairie Oil Company's Corbett 3, C N½ S½ NE 17-13-3w, in the Britton field, Oklahoma County, after finding Wilcox sand dry at 6069-6160 feet, plugged back from 6800 feet and on test the well gauged 3,800,000 cubic feet of wet gas from Oswego lime. The well is being connected to separator for further testing.

A test at the north edge of the newly developed West Edmond area is running high on Hunton lime after cutting out the upper, or Bois d'Arc, section which is one of the major productive horizons in Fitts field. The well is Sohio Producing Company's Cargill 1, C SE SE 30-14-4w, which topped Hunton at 6963 feet, Viola at 7245 and is deepening into Simpson formations.

**Noble County:** Southeast of Billings field, Northern Ordnance, Inc.'s McCoy 1, SE NW SW 24-23-2w, picked up saturation in Layton sand and is testing. Depth of the pay is 3624-3636 feet. Layton sand is productive elsewhere in this vicinity.

Sinclair Prairie Oil Company's Bradbury 1, NE SE NW 29-22-1w, is drilling

and coring in Simpson below 5030 feet. Some shows have been encountered although no test has been made. Woodford shale was topped at 4948 feet and Viola lime at 4995.

**Payne County:** Skelly Oil Company has evidently proven a new gas pool at Simpson 1, SWc SE 30-19-5e, east of Stillwater and west of Ingalls, but drilling is being continued with hole now below 3775 feet in second Wilcox sand, top of which was checked at 3743 feet. The upper sand was dry. All formations cut were dry with the exception of Misener which will produce gas commercially. A slight show of gas was encountered in the top of the second Wilcox which is as yet untested.

**Oklahoma County:** Stanolind Oil & Gas Company's Johnson 1, NW SW NE 9-13-1e, test of a seismic high, tested only mud and brackish water in the upper Wilcox and is drilling to the second bench of the sand with hole below 5770 feet.

**Payne County:** Mid-Continent Petroleum Corporation's Jones 1, SW NE NE 12-18-1e, wildcat test northwest of Ramsey, found all zones to second Wilcox dry; found only 1 foot of this stratum present at the location, and on test failed to show more than water. The hole is being plugged at 5016 feet.

### Yates Field Hearing Reset September 30

Hearing on the Yates field, Pecos County, was postponed last week by the Railroad Commission from September 20 to September 30. The corrected notice stated that the hearing would be confined to a request for an adjustment on allowables for "minimum" wells in that field, indicating that the larger wells in the field are taken care of adequately under existing orders. The "minimum" wells referred to are those allowed to produce a minimum of 10 barrels each.

A hearing has been scheduled for September 27 to determine the number of acres to be assigned to Humble Oil & Refining Company's Grace Keller 3 well in the Webster field, Harris County.

Scheduled for October 1 is a hearing to consider the application of Sinclair Prairie Oil Company for a new field allowable on a well in Nueces Bay, Nueces County.

### East Texas Salt Water Order Amended

The Texas Railroad Commission last week amended its East Texas salt-water disposal order to require that a well-status report should be submitted every 6 months on leases connected to any salt-water-disposal system, "and shall show the results of tests made on the wells on said leases during the last 30 days of said 6-month period."

The order previously had provided for semi-annual tests, but did not designate the 30-day period prior to the end of such 6 months during which those tests shall be made.

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**SAMUEL B. PETTENGILL,** former member of Congress from Indiana, addressed oil men at Tulsa September 24, on "Oil Industry and Free Enterprise," under the auspices of Independent Petroleum Association.

## West Texas

### Southeastern Andrews County Well Showing

Discovery of an oil pool in Southeastern Andrews County and east of the general trend of fields involving the central platform region of the Permian Basin is in prospect. This isolated wildcat involves The Texas Company's John E. Mabee 1, C NE SW G&MMB&A 37, Block 40, T-2-N, which yielded 660 feet of oil- and gas-cut mud when tester used at 4636-95 feet in San Andres, topped at 4640 feet with elevation of 2915 feet. Fluid rose in the 4½-inch drill pipe at rate of 9½ barrels hourly. Additional pay was logged in coring to 4701 feet, where operations were halted to set 7-inch at 4636 feet for completion. The company holds lease on a 14,000-acre block, which was taken in 1941 after seismograph survey. Mabee 1 is 16½ miles east by north of North Cowden field, nearest production, and 2¼ miles east of the most northerly of 3 failures drilled in 1940-42 by Texas Pacific Coal & Oil Company and Seaboard Oil Company, including 2 that yielded small amounts of free oil.

Phillips Petroleum Company's University-Andrews 45, C SE SE Section 19 on the north edge of the Embar field, unexpectedly entered granite at 8004-15 feet, thus accounting for the sharp structural relief heretofore noted in this comparatively small Ellenburger field. The well flowed 731 barrels of 45.4-gravity oil on 21-hour test through ¼-inch after washing perforations at 7975-90 feet in Ellenburger. The company's Cowden-Embar 1, Permian gasser that preceded the discovery of deep pay, 1⅛ miles southeast of Ellenburger production, entered Simpson at 7935 feet and after testing water in Ellenburger at 8553-76 feet will attempt to complete in Clear Fork at 6240 feet.

Extension of the Fullerton field 2½ miles southeast became assured when Mid-Continent Petroleum Corporation's University 1-B, C NW NE Section 16, Block 13, logged oil saturation and porosity in upper Clear Fork at 6870-6907 feet, within the production countour of the field proper. This outpost logged top of San Andres at 4340 feet with elevation of 3299 feet, being 76 feet low. No failures have been drilled within or near the Fullerton field, and the smallest producer is a structurally low northwest outpost.

**Cochran County:** Sunray Oil Company's Reed 1, C SE SW Section 57, Block A-26, Harrison & Brown Survey, is a prospective oil discovery on a block of 1200 acres in the west central part of the county, having cemented 5½-inch on bottom at 5250 feet after logging oil saturation and porosity at 5060-95 and 5120-30 feet in San Andres topped at 4310 feet with elevation of 3841 feet. Pipe will be perforated for completion.

**Gaines County:** Wildcatting in this county increased to 5 operations with announcement that Tide Water Associated Oil Company will drill Woodley 1, C SE SE PSL 62, Block AX, to 7500-foot Clear Fork. Continental Oil Company's Jones 1-A and Humble Oil & Refining Company's Cox 1, both Ordovician projects near the west edge of the county, were drilling lime at 8943 feet and 6690 feet, respectively. Honolulu Oil Corporation's Homann 1, 7 miles northeast of Seminole and in a favored area, was drilling at 2270 feet, having failed to register anticipated structural relief in topping anhydrite at 2230 feet with elevation of 3250 feet. The Texas Company's Parmer County 1 was drilling at 4040 feet with top of Yates sand called at 3350 feet. Stanolind Oil & Gas Company's American 15, Cedar Lake field, passed out of black shale beds overlying Ordovician, and was drilling dry lime at 11,515 feet.

**Pecos County:** Depth record for the district has been attained by Phillips Petroleum Company's Price 1 in drilling lime and dolomite at 12,825 feet with Ordovician as its objective. Magnolia Petroleum Company and Anderson-Prichard Oil Corporation's Powell-State 2, ¼-mile northeast of their recent 3539-46-foot Clear Fork oil strike, tested 20 feet of mud cut with sulphur water in using tester at 3598-3604 feet, and was drilling at 3635 feet to explore Ordovician. Standard Oil Company of Texas has contracted to drill the first Ordovician test in the northwest corner of the county as part consideration in acquiring lease on about 12,000 acres of the Joe C. Trees ranch, centering upon H&GN 27, Block 8.

**Upton County:** Texas Pacific Coal & Oil Company's Lane 52-A, McCamey field, was drilling shaley-lime at 7544 feet in Simpson, topped at 7310 feet with elevation of 2589 feet. This initial deep test for area logged an 86-foot section of Silurian, which indicated oil production, then a 109-foot zone of Montoya, indicating complete geological column, but comparatively thin beds.

**Andrews County:** Two additional Clear Fork prospects are slated for the county. Shell Oil Company made location for Cox 1, C NW SE PSL 5, Block A-31, 4 miles northwest of Union pool. Cities Service Oil Company assumed deferred drilling obligation in acquiring lease on University Sections 9, 10 and 11, Block 14, from Empire-Southern et al for a cash bonus of $25,000.

## North Texas

### Archer County Confirmation Well Makes Good Flow

Phillips Petroleum Company's Wilson 1, north offset to the company's recent Bend lime discovery for the Little Wichita River area, Archer County, was showing for a prolific natural producer. The well tried to flow while perforating pipe at 4870-85 feet, in Bend, topped at 4870 feet, being 9 feet high, and also flowed while tubing was being installed. Official potential test is pending.

Deep Oil Development Company, discoverer of the nearby Chalk Hill 3-pay field, is seeking an east extension to the area and is also to try for Bend production on the south end of the Chalk Hill field, which accounted for several small wells from this lower pay during early stages of development.

**Cooke County:** The twentieth consecutive producer for the Winger sand sector on the east flank of the Walnut Bend field was chalked up when Sinclair Prairie Oil Company's Atkins 15, inside location, flowed 1252 barrels potential through 2-inch from perforations at 5449-67 feet, having plugged back from water in Simpson sand at 5602-09 feet. Expansion of this prolific area north and east appears partially checked. The Texas Company's Raiser 1, Block 80,

tested oil with water from perforations at 5556-68, 5595-5616 and 5624-34 feet, then squeezed to try for completion in first oil pay at 5556-66 feet. Sinclair Prairie Oil Company's Ramsey 15, west offset to the most northerly producer, logged only 41-foot Winger zone, topped at 5516 feet, followed by Simpson lime at 5557 feet and sand at 5579 feet. The Simpson zones yielded water. This well yielded 82 barrels of oil on 12-hour swabbing test from Winger sand perforations at 5528-32 feet, assuring a commercial pumper.

**Montague County:** Continental Oil Company's Vaughn 2, northwest outpost for the Illinois Bend 2-pay pool and nearest to the Oklahoma border, abandoned at 4880 feet after testing both oil zones through perforations. In the Hildreth field, Continental Oil Company's Gadberry 1, ⅞-mile east by south of production, tested water in Simpson at 7202-7310 feet, and will be plugged back for completion in Bend conglomerate, which showed for a flowing well through tester at 6115-50 feet. H. F. Wilcox Oil & Gas Company's Tucker 1, southeast outpost for the Hults-Owens pool, was awaiting orders in shale at 6303 feet, but will renew attempt to make a producer from oil saturation in Bend conglomerate at 6091-6006 feet. Lion Oil Refining Company's Freeman 1 and C. E. Rodgers et al's Neeld 1, wildcats in the south portion of the county were drilling at 7540 feet and 7095 feet, respectively.

**Hardeman County:** Humble Oil & Refining Company's Dodson 1, 3 miles northwest of Chillicothe and an Ordovician prospect, entered Canyon lime at 4245 feet, and drill-stem test at 4248-77 feet yielded 67 feet of oil slightly cut with gas. The test was drilling shale at 4485 feet.

## East Texas

### *Deep Area Opened East Of East Texas Field*

A second deep producing area has been uncovered immediately east of the East Texas field. The new strike involves Beacon Oil & Refining Company et al's J. H. Allen 1, Taylor Brown Survey, 4 miles northwest of Henderson, Rusk County, with initial flow of 231 barrels of 42.8-gravity oil, gas-oil ratio of 623/1, on ¼-inch tubing choke after acidizing through perforations opposite Pettit saturation at 7250-64 feet. Pressure reading on casing dropped from 1900 to 750 pounds and from 800 to 340 pounds on tubing. This discovery is 4¾ miles east of Dad Joiner's Woodbine producer that opened the East Texas field, and is 3.6 miles southwest of Delta Drilling Company et al's Kangerga 1, R. P. Lane Survey, 7618-foot failure that yielded a small amount of free oil with salt water when tester was used at 7283-7316 feet in Pettit, topped at 7250 feet with elevation of 401 feet. Geological markers have not been released by the owners of the discovery producer.

The Willow Springs field, opposite the Gregg County sector of the East Texas field and centering 3 miles southwest of Longview, is producing gas and distillate, although a few oil wells were completed from the Pettit then fell short of commercial output.

**Wood County:** The Oak Grove prospect of F. R. Jackson, R. L. Fisher and

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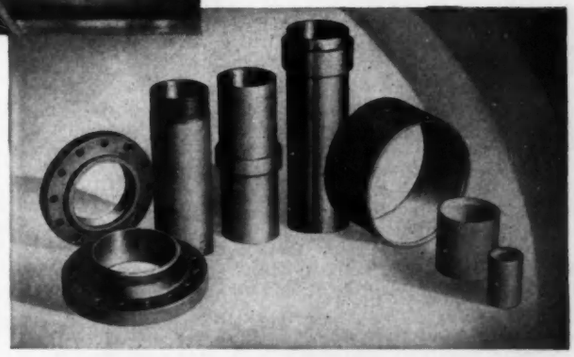

HARRISBURG STEEL CORPORATION

HARRISBURG, PENNSYLVANIA

Bert Fields on the McCarley 150-acre tract, Hazard Anderson Survey A-9, opened a new Woodbine oil producing area, but the oil is 15-gravity and a production test has not been completed. This twin test to a junked Paluxy wildcat filled 2000 feet from surface with oil after perforating casing at 5416-28 feet, having drilled through the oil sand to water at 5610 feet. Attempts to swab down met with failure on accont of the viscosity of the oil. However, additional perforations were to be made opposite lower sand at 5546-86 feet, which may yield higher gravity oil, or water.

Plains Production Company's Cox 1, Joseph Simpkins Survey and 4000 feet southeast of Alba, drilling at 4995 feet, having logged top of Woodbine at 4349 feet. This wildcat logged nominal oil saturation in Sub-Clarksville, and is structurally high for the area.

**Hunt County:** Stanolind Oil and Gas Company's Hamilton 1, second producer for the Campbell field, swabbed 200 barrels of fluid, averaging 97 percent oil, on 20-hour test from Paluxy sand at 4350-52 feet. It is a northeast offset to the company's discovery pumper and east of a failure.

**Manziel Field:** Roger Lacy et al's Shamburger-Magnolia 1, northeast outpost, recorded low structural position in entering Paluxy at 6379 feet, and was awaiting orders in water sand at 6403 feet with barely sufficient oil saturation in upper sands to warrant running pipe for test.

**Wildcats:** Skelly Oil Company's Chisum 1, Sand Flats area, Smith county, was drilling water sand at 5010 feet in Woodbine, topped at 4870 feet with elevation of 432 feet. In Van Zandt County, Superior Oil Company's Groves 1 Travis Peak project, proved dry in Paluxy, topped at 6230 feet, and was drilling shaley-lime at 6930 feet.

## Southwest Texas

### Discoveries Pending in Bee and Jim Hogg

A new oil field for Jim Hogg County is assured with The Texas Company preparing to make a flow test on a wildcat 8 miles southwest of Hebbronville and 3 miles southwest of the recently discovered Yaegar field. The discovery is Armstrong 1, in the southeast corner of SK&K survey 99. Hole was drilled to 3260 feet in shale, at which point 5½-inch casing was set for a production attempt. Loma Novia sand was logged at 3245-55 feet, and a drill-stem test of this horizon developed 650 pounds bottom-hole pressure while flowing oil. The working pressure was 100 pounds, using ⅜-inch chokes top and bottom, while the shut-in pressure mounted to 1100 pounds.

Another assured discovery is Pure Oil Company's Williams 1 in the Blanconia area of Bee County, being in the extreme east corner of the county and ½ mile east of Tuttle 1, gas discovery in the Vicksburg sand. Casing was set to 4977 feet, total depth, after running a drill-stem test at 4955-57 feet recovered 1000 feet of oil and 185 feet of oily mud, with 230 pounds working pressure. One-quarter inch chokes were used on top and bottom with the bottom hole pressure mounting to 1500 pounds, the test being for 10 minutes duration. The sand having the oil show was logged at 4953-59 feet in Vicksburg. Shale and sand were found at 4959-65 feet and sand with shale streaks and oil at 4965-77 feet. Shale was encountered at 4978-79 feet.

**Fayette County:** First commercial oil production has been established in Fayette County, the discovery being Continental Oil Company's Cockrill 1 in Cistern area, west portion of county. On a potential test the well flowed 55 barrels of 18-gravity oil daily from the Reklaw sand. Perforations were made at 1186-89 feet after logging the sand at 1184-1200 feet. The flow was through ¼-inch choke with 120 pounds pressure on tubing and 300 pounds on casing. Hole is bottomed at 4498 feet with 5½-inch casing set to 1554 feet. Location is ½ mile southeast of a gas well drilled by the same company, and is on the southwest edge of Cistern townsite in J. T. Whiteside League.

**Jackson County:** Another oil field is assured with W. L. Pickens recovering 4000 feet of oil on a 10-minute drill-stem test in Kramer 1, wildcat 6000 feet southeast of Mauritz field production. A test in the Frio sand section at 5701-5704 feet developed 160 pounds working pressure. Operator has set casing to make first production test. This discovery is in southeast corner of lot 10, Morris and Cummings survey 34.

**Discovery:** Potential gauge has been run on Quintana Petroleum Corporation's South Texas Syndicate 7-C, oil discovery at Green's Branch, McMullen County. The well was completed in open hole at 3933-41 feet and flowed 89 barrels per day through 3/16-inch choke with tubing pressure of 40 pounds. The hole is bottomed at 3941 feet in first Carrizo sand, top of pay being 3935 feet .Operators set 5½-inch casing to 3933 feet. One other well has been drilled in the area, it being a gas producer.

**Bee County:** Transwestern Oil Company and H. B. Zachary Company's Holzmark 1 is preparing to test. This well, which has indications of opening a new field, is 1½ miles southwest of deep distillate production in Wilcox sand at Mineral, Bee County. Drilled to 8919 feet, operators set 5½-inch casing to 8900 feet for the production attempt. Prior to setting pipe, an electrical survey to 8440 feet picked up two nice shows of oil or distillate production.

The Holzmark 1 blew out previously while taking a core at 8309 feet and flowed several million feet of gas daily through ½-inch choke on blowout preventer.

### No More Conversions of Oil Burners to Coal

Faced with coal shortage possibilities, PAW has completely dropped its conversion program in industrial and commercial establishments.

All told, the conversion program of the past year has brought about a savings of 50,000,000 barrels of oil annually.

Announcing cessation of its conversion effort, which was dropped some weeks ago so far as homeowners and consumers of less than 10,000 gallons annually were concerned, PAW warned that it did not mean that the oil problem had been licked but was a recognition of the shortage of delivery equipment and manpower for coal delivery.

## Texas Gulf Coast

### Jefferson County Field Being Opened; Drilling Up

The coastal area is in line for another oil field with Glenn H. McCarthy making a series of flow tests on McFaddin 1, T&NO 143, 3 miles east of the Stowell field in Jefferson County. The well is cleaning out after making perforations in a sand section at 9685-9725 feet. Although details have not been released on this discovery, which is believed to be in the Frio section, the well is reported to be flowing considerable oil. Tubing pressure mounted to 950 pounds while pressure on casing rose to 1850 pounds. The oil is 36 gravity.

This well, which is bottomed at 10,148 feet, is McCarthy's second recent strike in the county. He discovered the Stowell and North Stowell fields which have developed into major producing areas from the Frio sand. Both areas have multiple sands and some wells are being dually completed.

**Drilling:** Both wildcat and field drilling are showing an increase on the coast. Many of the new locations are drilled in attempts to extend present fields. Such is the case of wells recently announced for Manvel in Brazoria County, Dyersdale in Harris County, Alta Loma in Galveston County, an east extension test at North Markham in Matagorda County, and a south extension well at Lake Creek in Montgomery County.

The first development in years is in store for the Angleton field of Brazoria County. This area, which does not have large reserves, will be explored again with Humble Oil & Refining Company announcing it will drill Galaznik & Taylor 1, a 12,500-foot test, on a 58-acre tract in J. de Jesus Valderas survey. The majority of the field wells produce gas. At the same time, Gulf Oil Corporation is preparing to drill a 12,000-foot well on the northeast side of Fannette dome in Jefferson County. The development will be the first for the area in many months. Location is Craigen 1-A on a 120-acre tract in W. H. Smith survey.

**Harris County:** Sun Oil Company is preparing to again test the Hale prospect, and has staked location for Hirsch 1. Located 4½ miles northwest of Huffman on a 200-acre tract, the site is ½ mile east of the same company's Foster 1 dry hole abandoned in 1941 at 8503 feet. Cockfield was topped at 7315 feet in this latter well and Cook Mountain around 8430 feet.

**Polk County:** Humble Oil & Refining Company is drilling at a shallow depth in Carter & Brothers 3-B, Wilcox wildcat on the north flank of Segno dome in Polk County.

## South Louisiana

### Miocene Sand Productive In Big Lake Field

Miocene sand production has been opened at Big Lake in Cameron Parish with Continental Oil Company completing Hebert 1, in Section 18-12s-8w. The hole was drilled to 13,084 feet, one of the deepest in the area, but plugged back to make a series of tests at various levels. Last perforations were around

the 8590-foot section, the well flowing 238 barrels of oil daily through 11/64-inch choke. Tubing pressure mounted to 2550 pounds, casing sealed. The gas-oil ratio rose to 3895-1. This well is the first completion in the field in some time.

**Acadia Parish:** Continental Oil Company is drilling below 9200 feet in Acadia Parish School Board 2, Section 16-7s-1w, second well north of the north flank discovery at Richie dome. The well is considerable depth below the Acadia Parish School Board 1 discovery, which was completed in perforations at 8586-91 feet.

**Iberville Parish:** Sugarfield Oil Company is preparing to reopen an old abandoned well on the Rosedale prospect and drill it considerably deeper from its abandoned depth of 10,025 feet. The well, Iberville Mortgage and Loan Company 1, Section 74-7s-10e, was drilled by Humble Oil & Refining Company and abandoned in October, 1939. Sugarfield is going back into the hole to drill deeper and possibly make some production tests.

**Evangeline Parish:** The Pine Prairie field is rapidly developing into a major producing area with new sands being found on all sides except the north flank. The area already produces from the Cockfield and Sparta sands on the east and southeast sides. The Wilcox has been proved to production on the west and southwest flank while the Sparta also has shown possibilities on this side. Presently, two deep tests are being drilled on the west and south sides of this large dome. The first is The Texas Company and Humble Oil & Refining Company's LeDanois Land & Stone 1, Section 35-3s-1w. The second is on the south flank being Chapman-Miller Unit 1. This well is projected to 11,000 feet which will thoroughly explore and the Cockfield, Sparta and Wilcox sands sections.

## North Louisiana

### Jackson Parish Deep Test Is Abandoned

Plans to abandon Mid-Continent Petroleum Corporation's Tremont 1, SE 1-15n-3w, deep wildcat oil test in Jackson Parish which had been the result of many rumors during the past few weeks, were announced last week after continued testing of the deep Pettit zone showed salt water. The latest perforation and test was made from 7293 to 7320 feet. Hole was drilled to below 8500 feet, but little other information was released.

At Sugar Creek T. F. Hodge's W. J. Byrd 3, SE 18-19m-5w, Claiborne Parish, was setting casing for completion after coring oil sand from 5863 to 5883. The hole was drilled to 5983 feet.

Location has been made for a south offset of the Hodge well for Hassie Hunt's Youngblood 1, SE 18-19n-5w to be drilled to 6000 feet by Penrod Drilling Company. The new location is southwest of Roy Lee Trustee's W. J. Byrd 1, SW 17-19n-5w extension discovery in the Travis Peak.

Carter Oil Company's Cotton Valley test in Bossier Parish, Bolinger 1, SE NW 2-22n-11w, was drilling in sand and shale below 7101 feet while Shell Oil Company's Bolinger 1, SW 2-23n-12w, north Carterville outpost, was continuing efforts at completion with perforations at 6087-92, 6092-108, and 6108-18 feet.

Expanded exploration of the Tuscaloosa, deep discovery zone in the Holly Ridge area, Tensas Parish, is underway with additional locations being made for Chicago Mill & Lumber Co.'s Mutual 1, SE 12-11n-9e; and Youngblood-Foree's Ayer 1, SE 21-14n-10e. Carter Oil Company's Shelly 2, SE NW 1911n-10e, is drilling below 5500 feet, and Union Producing Company's Jurden 1, NE 19-11n-10e, is below 4400 feet.

Frank and George Frankel's Muslow 1, NE WW 30-21n-7w, is reperforating at 4,277-87 feet to determine if penetration was secured in original perforation. This well loomed as a producer, was killed by water, squeezed and later perforated and tested some oil.

## Mississippi

### Two Locations Near Adams County Discovery

Two locations have been made by The California Company in the newly discovered field of Adams County. The two wells will be the company's Ella G. Lee 1, 52-7n-1w, and Natural Gas of Louisiana 2, 53-7n-1w. The discovery is producing oil from two levels around 10,300 feet. It is 15 miles west of Natchez and the same distance from Pure Oil Company's Natchez field discovery well.

Location has been made for Gulf Refining Company's Hickman 1, C NW NE 5-6n-2w, Lawrence County.

## Arkansas

### Stevens-Smart Area Drilling on Increase

Drilling operations, which have lagged for several weeks, in the Arkansas fields, expanded rapidly during the past week, in a great part due to the approval by PAW of 60 more wells in the Stephens-Smart field. Sixteen drilling permits were issued with 11 being in the Stephens-Smart area where at least 9 other locations were reported waiting permits. A recent PAW order permitted a chage to 2 wells to 40 acres.

**Union County:** The New London field is about defined with only one operation under way, Stewart Oil Company's King 1, C NE NE 18-18s-11w, drilling below 5400 feet after dislodging stuck drill stem. Lion Oil Refining Company's McDonald 1, Mount Holly field in C SE NW 10-17s-18w, is below 5700 feet, and Atlantic Refining Company's Davis D-1, C NE SE 10-17s18w, is below 6700 feet.

**Lafayette County:** Barnsdall Oil Company's Community Powell 4, NW NW 10-15s-24w, topped porosity at 6464 feet, drilled to 6485 feet and ran production casing. Lion Oil Refining Company's Wheat 1, 35-17s-24w, McKamie gas-distillate area, is preparing for completion at 9360 feet. This is a western outpost.

**Columbia County:** Two new locations have been made in the Dorcheat field: Carter Oil Company's S. C. Caldwell C-1, S½ SE 13-18s-22w, and Phillips Petroleum Company's Williamson et al 1, N½ NW 19-18s-21w.


**Silly, Ain't It?**

Henry J. Taylor announced over the Blue Network on the night of September 15th the studied opinion that no living man really understands the amazing Rube Goldberg fortune wheel on which each of us is obliged to gamble a guess in the form of an income tax return we swear to be correct. And Henry J. Taylor is a world authority on economics! How long would you continue to TRY PELCO FIRST if, after 35 years, we made of friendly relations a sort of incomprehensible nightmare? Of course you have a choice of supply stores—and only one government. But you do have a voice and a vote and tax revisions are even now coming up for consideration in Congress.

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**PELICAN WELL TOOL & SUPPLY CO.**

SHREVEPORT LOUISIANA

PELCO

Houston
Berwick
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New Iberia
Lake Charles

## California

### New Kern County Field Indicates Small Area

Opening of a new pool in Round Mountain area, Kern County, was effected last week through the completion of Bandini Petroleum Corporation's Signal-Mills 1, NW SW SW 24-28-28 which on last reported gauge was making nearly 300 barrels of 14.7-gravity clean oil. Production is from 15 feet of Vedder sand from 2420 feet to bottom of the hole at 2435 feet. Surrounding areas have been extensively tested it is considered likely the new find will not aggregate more than 100 acres.

Southwest of its recent Fellows area discovery, Chanslor Canfield Midway Oil Company's 7-11, NE NE NW 7-32-23, flowed 277 barrels of 21.2-gravity clean oil.

**Kern County:** A much favored prospective area 1½ miles north of Fruitvale field will be tested by a wildcat started by Tide Water Associated Oil Company's 6-54, SW SW SE6-29-27.

In a section adjoining that where Bandini Petroleum Corporation last week made a discovery, in the Round Mountain area, General Petroleum Corporation has started a new test, Railroad 2, NE NE SE 23-28-28.

**Kings County:** A wildcat of more than ordinary interest, a new test of the Hanford area, is Seaboard Oil Company's Phillips 66-2, SE NE SE 2-19-22. It is in a well-regarded sector of a considerable area where recently, following favorable surveys, several companies leased heavily.

**Los Angeles County:** Western Gulf Oil Company's very thorough test of Las Llajas area possibilities, despite several hopeful showings, on final tests proved a complete disappointment. The wildcat, Brady Estate 1,13-13-17, was taken to 9801 feet. Equivalent of the deep Sesnon sand found in the last 1000 feet proved barren.

**Madera County:** On test of an upper zone at 3935-3920 feet, in The Texas Company's Firebaugh area gas discovery, Moffatt 1-7, 7-12-15, a second producing horizon was brought in with a flow of 6,500,000 cubit feet. On a first test, in a zone lying only a few feet below, the well made 8,000,000 cubic feet. The lower interval is at 3955-3973 feet.

**Ventura County:** The re-entry of Richfield Oil Corporation in the Ojai area brought resumption of wildcatting in a district long regarded as a prospective area of much promise. Richfield's initial project, Ojai 48, was staked in SW SE SE 12-4-22.

Pacific Western Oil Corporation's Temescal 14, 4-5-18, Piru area, drilled to 10,313 feet in the deepest try ever ventured in that field, was plugged back to 3200 feet for test of shallow showings not regarded as important.


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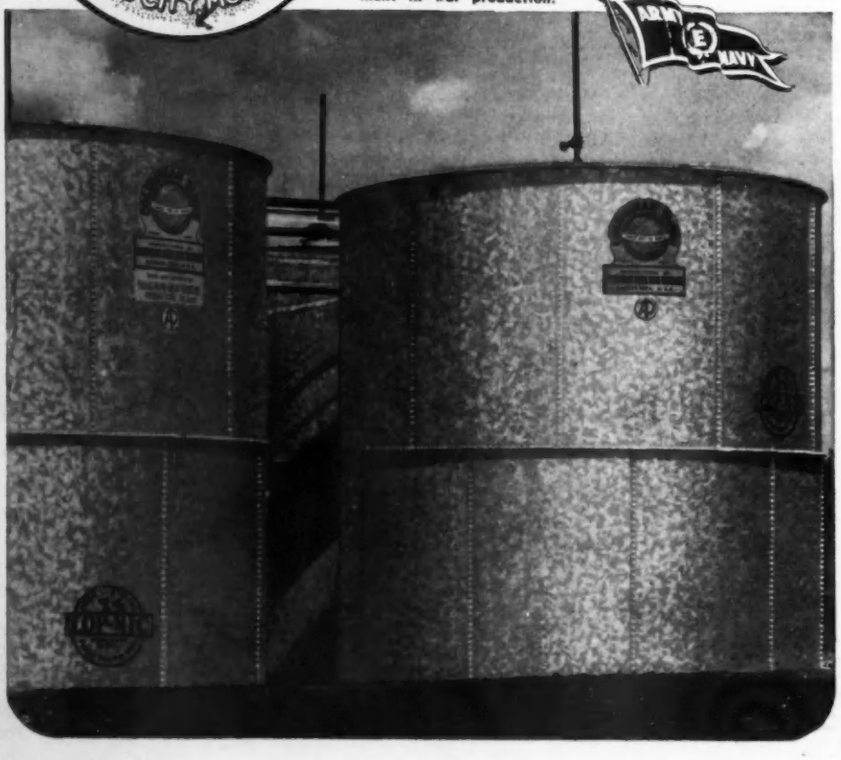



## Michigan

### Rose Lake Offset Will Test Lower Horizons

Ohio Oil Company has temporarily passed the Traverse section on Howe 1, S½ SE SW 21-19n-9w, west offset to the Rose Lake pool discovery, to test the deeper Dundee and Monroe beds. Traverse topped at 3074 feet, elevation 1225 feet, showed a 12-foot rise over the discovery. The discovery originally was drilled deep enough to test the Dundee and Monroe, both being dry, and then completed by plugback in the Traverse.

**Missaukee County:** Sun Oil Company's Wilson 1, S½ SE SE 11-23n-5w, semi-wildcat, is testing an oil pay in the Richfield (3rd pay of the Detroit River) between 4536 and 4545 feet. Test swabbed 15 barrels of oil and 2 barrels of water. At 4485 feet the well showed 500,000 feet of gas.

**Osceola County:** Sun Oil Company's Davy 1, N½ NE SW 25-18n-8w, mile east of the Evart pool and about 45 feet lower structurally, has swabbed from 35 to 53 barrels of oil per day on initial tests from Dundee. It is making some bottom water and more work on a bottom plug is in line before acid treatment.

**Wexford County:** Cherokee Oil Company perforated casing in Dundee between 3700-3714 feet and failed to get a show of free oil or gas in Wood 1, S½ SW NW 19-22n-9w, closely watched outpost. It will be acidized in final attempt to get production. Cores showed possible pay.

Hassie Hunt's Zyler 1, W½ SE NW 30-22n-10w, logged Dundee at 3704 feet and black water at 3785 feet, and shut down for orders at 3856 feet.

**DR. C. M. LOUCKS,** University of Tulsa chemist, has accepted a position with Dowell, Incorporated in Illinois.

# United States Well Completions

### ARKANSAS

**Columbia County—Smart:** Crow & O'Farrell's Weaver D-1, nw nw 11-15s-20w, abnd.

### ARKANSAS WILDCATS

**Cleveland County:** Lion Oil Refining Co.'s Reep 1, 25-11s-9w, abnd.

### CALIFORNIA

**Fresno County—Coalinga Old Field:** Standard's 50-1C, ne sw sw 1-20-15, pump 40 bbls 25.1-gr oil, 80 water, 130 ft perf 4278 ft, td 4285 ft.

**Fresno County — Guijarral Hills:** R. S. Lytle's 86-20F, se ne se 20-20-16, flow 900 bbls 29.2-gr oil, 436,000 gas, 14/64-in, 940/950 lbs, 220 ft perf 9012 ft, Pleasant Valley 8749 ft, td 9012 ft.

**Kern County—Belridge, South:** Belridge Oil Co.'s 15-34, ne ne sw 34-28-21, pump 55 bbls 17.3-gr oil, 50 water, 340 ft perf 749 ft, top sand 410 ft, td 749 ft.

Belridge Oil Co.'s 86-34, se ne se 34-28-21, pump 40 bbls 254 ft perf 1175 ft, td 1175 ft.

General Petroleum Corp.'s 24-12, sw se nw 12-29-21, pump 82 bbls 15.1-gr, perf 912-974, 1015-1084 ft, td 1085 ft.

**Kern County—Buena Vista Hills:** Standard's 91-7D, ne ne sw 7-32-24, pump 67 bbls oil, 10 water, 26 ft perf 3291 ft, Scalez sand 3265 ft, second Scalez 3299 ft, td 3328 ft.

**Kern County—Kern Front:** Standard's 58, ne ne sw 15-28-27, pump 108 bbls 13.5-gr, 85 ft perf 2395 ft, td 2280 ft.

**Kern County—Lost Hills:** Texas Co.'s Theta 2-20, ne nw sw 2-26-20, flow 10 bbls, 40 ft perf 1423 ft, td 1423 ft.

**Kern County — Midway Sunset:** Chanslor Canfield Midway Oil Co.'s 80-6, sw se sw 6-32-23, pump 15 bbls 21-gr oil, 45 water, perf 3105-3090 ft, td 3250 ft, pd 3108 ft.

Richfield Oil Corp.'s Fairfield 17, ne se nw 11-31-22, pump 182 bbls 15.7-gr, 67 ft perf 1392 ft, td 1483 ft, pd 1395 ft.

Standard's 51-30D, ne ne se 30-32-24, pump 121 bbls 13.1-gr oil, 80 water, 35 ft perf 2607 ft, td 3430 ft, pd 2604 ft.

Standard's 42-33D, se ne nw 33-32-24, abnd 4700 ft.

**Kern County—Mount Poso:** General Petroleum Corp.'s Glide 21-19, ne sw ne 21-27-28, pump 162 bbls 15-gr oil, 61 water, 50 ft perf 2013 ft, top Vedder 1963 ft, td 2013 ft.

**Los Angeles County—Torrance:** Texas Co.'s R.I.Co. 7, 897 ft sly along wly bdry City of Torrance fr c/l Baryl St thence 721 ft ely at r/a, 5-4-14, pump 54 bbls, all circulated oil, 23 water, 338 ft perf 3600 ft, td 3600 ft.

**Los Angeles County — Wilmington:** Continental Development Corp.'s L.A.C.F.C.D. 28, 1025 ft s 50 ft e sec Anaheim and Pico Blvds, pump 32 bbls 13.2-gr oil, 4 water, 299 ft perf 3529 ft, td 3534 ft.

A. D. Mitchell's Fleming-Weber 1, 130 ft s 135 ft w c/ls "L" and Lecouvreur Sts, pump 102 bbls 11-gr oil, 28 water, perf 2748-2810, 3000-3090, 3135-3245, 3402-3511, 3594-3630 ft, producing from Tar and Upper Ranger zones, td 3633 ft.

**Orange County—Huntington Beach:** Huntington State Co.'s State 2, 18 ft nely and 30 ft sely fr swly cor Blk 114, 10-6-11, abnd 4828 ft.

Standard's Huntington A-50, 330 ft nwly along c/l Wesley Ave fr c/ls 23rd St thence 250 ft wly at r/a, 3-6-11, pump 100 bbls oil, 25 water, 449 ft perf 3618 ft, td 3620 ft.

**Santa Barbara County—Gato Ridge:** Petrol Corp.'s Magenheimer 651, nw ne ne 4-8-32, pump, no est, 499 ft perf 4662 ft, td 4662 ft.

**Santa Barbara County—Santa Maria Valley:** Union's Tognazzini 1, 1050 ft nly 330 ft wly fr nwc Brown ppty, 15-10-35, pump 128 bbls 15.3-gr oil, 47 water, 230 ft perf 5300 ft, td 5301 ft.

**Sacramento County — Thornton:** Amerada's Hausken Comm. 1, nw ne se 28-5-5, flow 6,852,000 ⅝-in, 842/1354 lbs. gas, perf 3285-3350 ft, td 6003 ft, pd 3397 ft.

### CALIFORNIA WILDCATS

**Kern County—Extension:** Chanslor Canfield Midway Oil Co.'s 11-7, ne ne nw 7-32-23, Fellows area, flow 277 bbls 21.2-gr 24/64-in, 165/0 lbs, 227 ft perf 3015 ft, td 3015 ft.

**Kern County—Oil Discovery:** Continental Oil Co.'s KCL- G-1, nw nw ne 4-30-26, flow 228 bbls 29.6-gr, 7/16-in, 185/590 lbs, perf 7482-7488 ft and 7494-7501 ft. Discovery 2½ mi fr nearest production but field probably not more than 200 acres, td 8135 ft, pd 7534 ft.

**Kern County—Extension:** Western Gulf Oil Co.'s L.A.A. Club 36-1, sw ne sw 1-32-26, Paloma area, flow 153 bbls 29.8-gr 135,000 cu ft, 20/64-in, 190/0 lbs 2 Paloma sand 11,050 ft, sand 11,120-11,185 ft, td 11,349 ft, undetermined whether find is extension of Paloma field or separate accumulation.

**Kern County—Discovery:** Bandini Petroleum Corp.'s Signal-Mills 1, nw sw sw 24-28-28, sw Round Mountain field, pump 150 bbls 17.3-gr oil, 50 water, 50 ft perf 2435 ft, td 2435 ft.

**Tulare County—Failure:** Tide Water Associated's Corehole 84-35, se se ne 35-21-26, Porterville area, abnd 2333 ft.

**Santa Barbara County**—Failure: Union's Sisquoc Corehole 3, 28-9-31, Rancho Sisquoc, Tinaquaic area, abnd 2640 ft.

### ILLINOIS

**Clay County:** Pure's Clark 15, ne ne sw 8-2n-8e, Weiler 2651-60 ft and 2673 ft, 43 bbls, 2673 ft.

W. C. McBride Inc.'s Busby 1, nw nw nw 35-4n-7e, Cypress 2604-12 ft, 69 bbls, 2612 ft.

**Edwards County:** Kneipp & Beaulegmann's J. T. Price 6, nw nw se 14-1n-12w, Walt 1564-71 ft, 110 bbls, 1571 ft.

J. S. Young and Illinky's Courter 3, sw ne ne 26-1n-12w, abnd 1500 ft.

Texas Co.'s Shelby 1, c nel ne ne, 16-1n-10e, abnd 3312 ft.

**Franklin County:** E. S. Adkins' LeRoy Clayton S 1, nw nw sw 30-7s-3e, Tar Springs 3062-2100 ft, 151 bbls 2100 ft.

**Hamilton County:** Pure's Guy St. Clair A 2, ne nw sw 18-6s-7e, Tar Springs 2437-68 ft, 208 bbls, 2468 ft.

**Jasper County:** Roy Powers' Ed Hall D 1, w½ se ne 19-5n-10e, abnd 2852 ft.

**Lawrence County:** George Engle's Ridgley 1 A, nw nw nw 12-2n-12w, abnd 1910 ft.

**Marion County:** Rockhill Oil Co.'s Foster 21, se se 7-1n-2e, Benoist 1826-34 ft, Aux Vases 1876-1899 ft, input, 1899 ft.

Texas Co.'s Branch 3, ne se nw 4-2n-2e, McCl 2137-52 ft, 38 bbls, 2152 ft.

**Posey County:** Sun's Hon-Blackford Unit 1, nw se sw 19-4s-14w, abnd 3150 ft.

Cherry & Kidd's Kerwin 17, nw nw ne 14-8s-10e, Cypress 2382-2414 ft, 172 bbls, 2447 ft.

**Wayne County:** Weinert's Liston 1, nw ne se 22-1s-8e, abnd 3106 ft.

Cities Service's Vaught 1, w½ sw nw 33-2s-9e, McCl 3290-3302 ft, 209 bbls, 3302 ft.

Pure's Flexter Cons A 2, se sw nw 35-2n-7e, Aux Vases 2959-3007 ft, 77 bbls, 3092 ft.

**White County:** Ameriagene Inc.'s Rudolph Unit 3, nw se ne 18-4s-10e, Tar Springs 2464-69 and 2515-32 ft, 47 bbls, 2545 ft.

Tidewater's Dennis B 1, ne ne ne 18-4s-11e, Benoist 2809-45 ft, 50 bbls, 2953 ft.

Sun's Garner 15, ne nw 1-5s-10e, Deg Sd 1996-2007 ft, Tar Springs 2299-2313 ft, 33 bbls, 3102 ft.

Clint Crosby's Bennett 2, ne nw sw 6-5s-11e, Deg Sd 1923-38 ft, 55 bbls, 2793 ft.

W. C. McBride, Inc.'s Bayley 2, sw se se 3-7s-9e, Buch 1506-32 ft, 11 bbls, 3100 ft.

Tidewater's O. Milliden 1, se se sw 3-7s-9e, Tar Springs 2341-54 ft, 52 bbls, 2884 ft.

### ILLINOIS WILDCATS

**Clay County—Discovery:** Oberling et al's Oberling et al's McGhee 1, ne ne sw 30-5n-7e, McCl 2838-47 ft, 300 bbls, 2847 ft.

**Clinton County—Failure:** Paul Moseback's Skidmore 1, ne se se 29-3n-2w, abnd 2679 ft.

**Jasper County—Failure:** Tidewater Oil's Eubanks Comm 1, se sw ne 5-8n-9e, abnd 2852 ft.

**Jefferson County—Failure:** Sohio Prod Co.'s Interstate Coal Co. 1, nw nw se 8-4s-2e, abnd 2179 ft.

**Richland County—Failure:** Sohio Prod Co.'s Balmer 1, ne nw sw 6-3n-14w, abnd 3348 ft.

**Wabash County—Failure:** Hayes & Wolfe's Calverley 1, ne ne sw 15-1s-13w, abnd 2680 ft.

**Washington County—Failure:** Luttrell et al's Nolting 1, ne nw ne 33-1n-1w, abnd 1700 ft.

### INDIANA

**Gibson County:** L. J. Lloyd's Ida Fithien 1 (2) c sw se 23-1n-10w, McCl 1680-94 ft, 225 bbls, 2018 ft.

**Pike County:** Chester Oil Co.'s Welch 1, nw se sw 16-1s-9w, 20 bbls, 1318 ft.

### INDIANA WILDCATS

**Pike County—Failure:** J. B. Graham's Othis Thomas 1, c sw nw 15-1n-7w, abnd 872 ft.

J. B. Graham's Thos. Stone 1, ne ne 16-1n-7w, abnd 781 ft.

J. D. Graham's Offill 1, c ne ne 21-1n-7w, abnd 1265 ft.

### KANSAS

**Barton County—Barrett:** Phillips' Adie 1, se se ne 36-16s-14w, Arb 3429 ft, 500 gals acid, pump 13 bbls oil, 13 wtr, 3460 ft.

**Barton County—Kraft-Prusa:** Herndon Drlg. Co.'s Radenberg 2, ne nw ne 17-17s-11w, Arb 3371 ft, abnd 3375 ft.

**Butler County—Brandt-Sensenbaugh:** Rex & Morris et al's Seeley 1, ne sw se 23-28s-7e, Miss 2731, 3000 gals acid, pump 50 bbls, 2752 ft.

**Butler County—Dunn's Mills:** Ingling &

## Wells Completed in United States in Week Ended September 25, 1943

**Data preliminary and subject to revision. Revised and more complete data on all completions shown in monthly summary of drilling, published in second issue of each month. More detailed data on wildcats published in third issue of each month.**

| State or District | FIELD COMPLETIONS: New Wells: *Oil | Gas | †Input | Dry | Total | Old Wells Deepened | WILDCAT COMPLETIONS: *Oil | Gas | Dry | Total | ALL COMPLETIONS: This Week | Last Week | Cumulative: This Year | Last Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alabama | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 2 | 3 |
| Arizona | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 4 | 2 |
| Arkansas | .... | .... | .... | 1 | 1 | .... | .... | .... | 1 | 1 | 2 | 2 | 154 | 170 |
| California | 18 | 1 | .... | 2 | 21 | .... | 4 | .... | 2 | 6 | 27 | 28 | 1,156 | 857 |
| Colorado | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 21 | 10 |
| Florida | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | .... |
| Georgia | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 | 2 |
| Illinois | 15 | .... | 1 | 6 | 22 | .... | 1 | .... | 6 | 7 | 29 | 36 | 1,352 | 1,521 |
| Indiana | 2 | .... | .... | .... | 2 | .... | .... | .... | 3 | 3 | 5 | 7 | 185 | 288 |
| Kansas | 9 | 1 | .... | 8 | 18 | 1 | 2 | .... | 11 | 13 | 32 | 30 | 1,243 | 1,229 |
| Kentucky | 3 | .... | .... | 6 | 9 | .... | 1 | .... | 2 | 2 | 11 | 8 | 269 | 111 |
| Louisiana | 3 | .... | .... | 2 | 5 | .... | 1 | .... | .... | 1 | 6 | 7 | 436 | 729 |
| North Louisiana | 1 | .... | .... | .... | 1 | .... | 1 | .... | .... | 1 | 2 | 1 | 182 | .... |
| South Louisiana | 2 | .... | .... | 2 | 4 | .... | .... | .... | .... | .... | 4 | 7 | 254 | .... |
| Michigan | 6 | 1 | .... | 3 | 10 | .... | .... | .... | 6 | 6 | 16 | 14 | 431 | 510 |
| Mississippi | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 34 | 88 |
| Missouri | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 17 | 24 |
| Montana | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 156 | 147 |
| Nebraska | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 28 |
| New Mexico | 4 | .... | .... | .... | 4 | .... | 1 | .... | .... | 1 | 5 | 9 | 196 | 302 |
| New York | 15 | .... | 10 | .... | 25 | .... | .... | .... | .... | .... | 25 | 14 | 862 | 935 |
| Ohio | 5 | .... | .... | .... | 5 | .... | .... | .... | .... | .... | 5 | 12 | 631 | 828 |
| Oklahoma | 5 | 3 | .... | 12 | 20 | .... | .... | .... | 4 | 4 | 24 | 38 | 1,023 | 1,086 |
| Pennsylvania | 31 | 6 | 17 | 3 | 57 | .... | .... | .... | .... | .... | 57 | 57 | 2,022 | 3,040 |
| Tennessee | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 6 | 8 |
| Texas | 58 | 2 | 1 | 14 | 75 | 1 | 1 | .... | 12 | 13 | 89 | 103 | 3,047 | 4,233 |
| E. Tex. Bor. Co.'s | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 16 | .... |
| E. Texas. Field | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 5 | .... |
| Rest of E. Texas | 3 | .... | .... | 1 | 4 | .... | .... | .... | 2 | 2 | 6 | 6 | 164 | .... |
| North Texas | 13 | .... | 1 | 6 | 20 | .... | 1 | .... | 3 | 4 | 24 | 22 | 737 | .... |
| W. Central Texas | 6 | .... | .... | 1 | 7 | .... | .... | .... | .... | .... | 7 | 8 | 279 | .... |
| West Texas | 18 | 1 | .... | 2 | 21 | 1 | .... | .... | .... | .... | 22 | 29 | 676 | .... |
| Texas Panhandle | 1 | .... | .... | 1 | 2 | .... | .... | .... | 1 | 1 | 3 | 2 | 148 | .... |
| G. Coast, Upper | 5 | .... | .... | 2 | 7 | .... | .... | .... | 3 | 3 | 10 | 6 | 241 | .... |
| G. Coast, Lower | 9 | 1 | .... | .... | 10 | .... | .... | .... | 2 | 2 | 12 | 21 | 471 | .... |
| Southwest Texas | 3 | .... | .... | 1 | 4 | .... | .... | .... | 1 | 1 | 5 | 7 | 268 | .... |
| S. Central Texas | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 2 | 42 | .... |
| West Virginia | .... | 11 | .... | 3 | 14 | .... | .... | .... | .... | .... | 14 | 17 | 476 | 560 |
| Wyoming | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 85 | 73 |
| Total U. S. | 174 | 25 | 29 | 60 | 288 | 2 | 10 | .... | 47 | 57 | 347 | 382 | 13,810 | 16,484 |

* Includes distillate wells. † Includes salt water disposal wells.

Parker's Salter 1, sw se sw 29-29s-4e, Arb 3014 ft, abnd 3023 ft.

**Cowley County—Baird:** B. B. Blair's Beeks 1, sw ne se 10-34s-3e, Miss 3374 ft, abnd 3403 ft.

**Ellsworth County — N. Heiken:** Atlantic's Shepmann 1, c sw se 14-17s-10w, Arb 3252½ ft, 2500 gals acid, pump 28½ bbls oil, 99 wtr, abnd 3287 ft.

**Greenwood County—Eureka:** Bennett Abels' Sample 1A sw se se 35-25s-10e, Miss 1974 ft, pay 1982-88 ft, pump 25 bbls, 1988 ft.

**Harvey County—Burrton:** Saco et al's Saylor 2, c se sw 17-23s-3w, Miss chat 3256 ft, perf 3274-79 ft, 3,400,000 gas, 3388 ft.

**McPherson County—N. Canton:** W. C. McBride's Greenwood 1, c n½ nw sw 36-18s-1w, Miss lime 2841 ft, pump 72 bbls oil, 48 wtr, 2854½ ft.

**McPherson County—Bitikofer:** E. B. Shawver's Weaver 2, c se nw 1-20s-1w, Miss chat 2897 ft, flow 25 bbls, 2920 ft.

**Phillips County—Ray:** Cities Service's Vehige 5, sw ne sw 28-5s-20w, Reagan 3606 ft, perf, 2775 ft, echo test 839 bbls oil, 3665 ft.

**Pratt County—Cunningham:** Deep Rock's Bowers 2, c e½ sw se 34-27s-11w, Viola 4143 ft, abnd 4209 ft.

**Rice County—Eberhardt:** Cities Service's Doll A 2, sw se nw 19-19s-10w, Lansing 3012 ft, 2000 gals acid, pump 451 bbls, 3385 ft.

**Russell County — Forrest Hill:** Lauck & Moncrief's Klusener 3, c n½ se sw, 28-15s-12w, Arb 3272 ft, swab 35 bbls oil, pot 2461 bbls, 3285 ft.

**Stafford County—South Sittner:** Sanolind's Teichmann B 2, c e½ ne ne 2-22s-12w, Arb 3601 ft, abnd 3625 ft.

Vickers' Messerly 1, c e½ se ne 15-22s-12w, Arb 3667 ft, abnd 3731 ft.

**Stafford County—Zenith:** Desa Oil Co.'s McComb 5, c e½ sw ne 22-24s-11w, Viola 3818 ft, 1000 gals acid, 1428 bbls oil, 672 wtr, 3827½ ft.

D. R. M. et al's Paulsen 1, c e½ nw se 22-24s-11w, Viola 3851 ft, 1000 gals acid, abnd 3906 ft.

### KANSAS WILDCATS

**Barton County—Failure:** Continental's Stoskopf A 1, sec nw 22-16s-13w, Arb 3475 ft, abnd 3485 ft.

**Cowley County—Failures:** Derby Oil Co. and Broswood's Collinson 1, se sw sw 24-30s-4e, abnd 2981 ft.

Northern Ordnance's Lewis 1, 36-31s-5e, nw ne sw OWWD-OTD 3120 ft, Arb 3495 ft, abnd 3498 ft.

Broadview Oil Co.'s Brooks 1, 29-31s-7e, c s½ ne sw, abnd 2820 ft.

Colorado Petroleum Co.'s Johnson 1, swc ne 5-35s-8e, abnd 2537 ft.

**Ellis County—Discovery:** Coralena's Bacon-Beedhing 1 nec se 34-15s-16w, Topeka 2855 ft, acid 4000 gals, 806 bbls, 3328 ft.

**Cove County—Failure:** Barnsdall's Inloes 1, se ne nw 11-11s-26w, KC 3782 ft, Miss 4353 ft, Arb 4535 ft, abnd 4600 ft.

**Graham County—Discovery:** Hollow Drilling Co.'s Ray Fesler 1, nwc 25-9s-21w, Cong 3722 ft, Arb 3672 ft, Pot 1,904 bbls, 3768 ft.

**Marion County—Failure:** Veeder Supply Co. and Hershey's Hitt 1, c s½ nw nw 13-19s-3e, chat 2390 ft, Viola 2736 ft, abnd 2758 ft.

**Reno County—Failures:** Texas Co.'s Moore 1, c se sw 13-25s-9w, Topeka 2742 ft, Viola 4142 ft, Arb 4295 ft, abnd 4328 ft.

Ingling & Parker and Continental's Amerine 1, nec se 35-25s-10w, Miss 4080 ft, Viola 4287 ft, Arb 4455 ft, abnd 4475 ft.

**Stafford County—Failures:** Black-Marshall and Armer's Geisler 1, c nw se 24-22s-13w, Lans 3387 ft, Stain 3545 ft, Arb 3759 ft, abnd 3790 ft.

Phillips' Crawford 1-A, swc 10-25s-12w, Simpson 4098 ft, Arbuckle 4139 ft, abnd 4170 ft.

### KENTUCKY

**Butler County:** Butler Co. Oil's Brown 3, 13-H-32, abnd 430 ft.

Curtis Prod Co.'s Sumner 1, 13-H-32, 30 bbls, 516 ft.

**Hancock County:** H. H. Vickers' J. L. Crowe 2 (4) 2-O-33, abnd 483 ft.

**Henderson County:** Blalock & Maiser's S. J. Melton 1, 8-N-23, Tar Springs 1963-78 ft, Waltsburg 1840-50 ft, 130 bbls, 1978 ft.

Sohio Prod. Co.'s Knight 1, 20-O-24, abnd 2576 ft.

Milo Seigel's Blackwell 3 (10) 19-P-27, abnd 1065 ft.

Milo Seigel et al's Dempewolf 5, 19-P-27, 20 bbls, 1059 ft.

Farmer & Chenault's Wm. Chase 4(6), 11-Q-26, abnd 2030 ft.

Coaster Oil Co.'s Hughland 1, 20-Q-26, abnd 2050 ft.

Coaster Oil Co.'s Haynes 1, 22-Q-26, abnd 2115 ft.

### KENTUCKY WILDCAT COMPLETIONS

**Henderson County—Failure:** Kingwood and N. V. Duncan's Deacon 1, 16-Q-20, abnd 2728 ft.

**Union County — Oil Discovery:** Kingwood Oil Co.'s Lilly 1, 21-O-19, McCl 2704-09 ft, 23 bbls, 2801 ft.

### NORTH LOUISIANA

**Claiborne Parish — Haynesville:** Midstates Oil Co.'s Whaley 1A, ne sw ne 4-23n-8w, flow 68, 600 bbls 38.5-gr ½-in, perf 5376-90 ft, tubing pressure 250, casing pressure 750 lbs, td 5450 ft.

### NORTH LOUISIANA WILDCAT

**Jackson Parish — Failure:** Mid-Continent's Tremont 1, se se 1-15n-3w, abnd 8500 ft.

### SOUTH LOUISIANA

**Calcasieu Parish—Vinton:** Union Oil Co.'s Gray 11-G, n 89 deg 30 mins e 2314 ft, th s 990 ft fr nw cor sec 33-10s-12w, 5½-in 5850 ft, perf 5790-5840 ft, flow 180 bbls, ½-in, td 5850 ft.

**Evangeline Parish—Pine Prairie:** Gulf's Schlicher-Thomas 6-A, 3620 ft w on nl sec 2-4s-1w, abnd 4878 ft.

**LaFourche Parish—Chacahoula:** Sun's Dibert, Stark & Brown 16, 1040 ft n, 132 ft w of se cor sec 75-15s-15e, 5½-in 8200 ft, perf 7804-30 ft, flow 194 bbls, ½-in, td 8200 ft.

**Rapides Parish—Cheneyville:** Amerada's Weil 21, 4915 ft n, 5112 ft w of s cor sec 5 in sec 7-1s-2e, abnd 5788 ft.

### MICHIGAN

**Allegan County — Fillmore:** W. S. Cook's Dykhuis 1, se ne se 3-4n-15w, Traverse lime, pump 11 bbls, 1545 ft.

**Clare County — Cranberry Lake:** Taggart Bros. Co.'s S19, c nw 16-20n-5w, Stray sand, 1,600,000 gas, 1307 ft.

**Mecosta County—Fork:** Gulf's Hamill 4, c ne ne 8-16n-7w, Dundee lime, flow 490 bbls, 3833 ft.

Smith Pet Co.'s Trail 1, se sw sw 8-16n-7w, pump 55 bbls, 3864 ft.

**Missaukee County—Norwich:** Sun Oil Co.'s Harner 5, s½ sw ne 11-24n-5w, Richfield lime, pump 29 bbls, 4416 ft.

**Newaygo County—Goodwell:** Pure's Hull 2, e½ sw nw 9-14n-11w, Traverse lime, flow 210 bbls, 2787 ft.

**Van Buren County—North Bangor:** Fisher-McCall's Davis 2, sw nw ne 9-2s-16w, Traverse lime, dry, 1041 ft.

**Van Buren County—Old Bangor:** Michahoma Oil Co.'s Cleary 1, sw ne sw 20-2s-16w, Traverse lime, dry, td 1018 ft.

Homrich and Kendall's Ulrath A1, nw ne nw 28-2s-16w, Traverse lime, pump 47 bbls, td 1006 ft.

**Wayne County—Huron:** Voorhees Drilling Co.'s Poet 1, ne sw sw 6-4s-9e, Trenton lime, dry, 2878 ft.

### MICHIGAN WILDCATS

**Gladwin County—Failure:** C. W. Teater's Fettig 1, w½ sw sw 10-20n-1e, Berea sand, dry, 2430 ft.

## FOR SALE

■ **FOR SALE: 1—14 x 12 Gardner Denver Twin Cylinder-Piston Valve Type Roller Bearing complete enclosed oil bath-steam engine mounted on 10 x 12 H Beam steel skids with necessary cross members and braces 20 feet long with National steam separator and trap-force feed oil pump and 6" Badgett steam lubricator for dual oil system-3" Brown throttle valve-22 tooth dual drive split sprocket for 1240 double chain. All the above mounted in unit and completely piped and fitted for steam connection.**

**2—12 x 12 Oil Well Supply Twin Cylinder Steam Engines mounted-fitted and equipped same as above. Approximate HP 750.**

**None of these engines needs overhauling or repairs. They are ready to go.**

**1—OWS 9 x 9 x 9 Drawworks unit with hydromatic brake, double engine drive water cooled drum. Complete with guards and chains.**

**1—400-ton 8" Ideco swivel complete w/goose neck and lefthand bottom connections.**

**Other drilling equipment, also 3½" and 4½" O.D. drill pipe for sale. F. H. Brown, P. O. Box 331, Carmi, Illinois.**

■ **FOR SALE: 3 complete Power Rotary Drilling Rigs with approximately 7000 feet 3½" OD Drill Pipe and 12,000 feet of 4½" OD Drill Pipe. All Waukesha, Butane Equipped Motors and Gardner Denver 14 Pumps. These rigs are all running and in good condition. Box 331, Carmi, Illinois.**

■ **FOR SALE: 3975' of 5-9/16" regular API drill pipe. 1300' Hughes FH drill pipe. 1-3 speed Union Tool Drawworks. General Oil Tool Company, Burrton, Kansas.**

■ **LUMBER FOR SALE: Douglas Fir oil field lumber and timbers up to 100 feet in length; also pine and hardwood timbers. E. J. Galennie, Box 1074, Shreveport, La.**

■ **FOR SALE: 6¾x12 Union Tool Mud Pump Unitized on one skid with two Mercury Fords, V-V Belt Drives with transmissions. Price $2000.00. U. S. Machine Shop, Electra, Texas.**

■ **FOR SALE: Six used bull ropes, pure manila; good condition. P. O. Box 607, Corsicana, Texas.**

■ **FOR SALE: Two completely reconditioned EMCO Type 3S 100"—2000-lb. Recording Gas Meters. Box 68, c/o The Oil Weekly, Houston, Texas.**

■ **FOR SALE: Wilson Super Model Drilling Rig with 3,000' drill pipe 7⅛ x 10 Gardner Denver Pump with Wilson Telescoping 87 foot 10" x 8" Mast Pole. Rig can be seen running. Robertson Drilling Company, Panhandle Bldg., Phone 2-2390, Wichita Falls, Texas.**

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■ **WANTED TO BUY: A good used anaroid. State price and condition of anaroid in letter. Address: J. S. Patton, 2205 Bath Avenue, Ashland, Ky.**

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**Regular classified advertisements for this special section, set in type this size without border, take flat rate of 7 cents per word for the first insertion and 5 cents per word for each subsequent insertion of same copy. Display advertisements for this section, set in suitably larger type with ruled border, are $5.00 per inch for first insertion and $4.00 per inch for subsequent insertions. Remittance must accompany copy which should be sent to:**

**Trading Post Section, THE OIL WEEKLY**
**P. O. Box 2608 Houston, Texas**

**Gratiot County—Failure:** Freeman Oil Co.'s Hicks 1, s½ se se 5-12n-4w, Dundee 3529 ft, dry, 3617 ft.

**Mecosta County—Failure:** American Prod. Co.'s Compson 1, c ne, 6-16n-7w, Stray sand, dry, 1511½ ft.

Southwest Dev. Co.'s Hewlett 1, ne ne nw 26-14n-7w, Stray sand, dry, 1648 ft.

**Osceola County—Failure:** Bond and Hilliard's State 1, w½ ne ne 1-19n-8w, Dundee 4108 ft, dry, 4218 ft.

**Van Buren County — Failure:** Grimes & Son's Grigork 1, nw se ne 21-1s-16w, Traverse, dry, 1079 ft.

### NEW MEXICO

**Eddy County:** Barney Cockburn et al's Etz 15, c ne nw 35-16s-30e, flow 125 bbls, 2-in, shot 240 qts 2940-3027 ft.

Grayburg Oil Co.'s Keeley 3-B, c sw sw 24-17s-29e, flow 240 bbls, 2-in, acid 9500 gals 2830-2938 ft.

**Lea County—Maljamar:** Johnie Cockburn et al's Miller 18-B, c se nw 30-17s-33e, flow 200 bbls, 2-in, shot (dual) 314 qts nitro 4150-4287 ft.

**Lea County—Monument:** E. B. Clark et al's Cooper 1-C, 684 ft snl and 1980 ft wel 3-20s-37e, salt 1428-2360 ft, lime 2635 ft, cased off 144,000,000 gas, flow 35 bbls, 2-in, acid 4500 gals 3850-3900 ft.

### NEW MEXICO WILDCAT

**Eddy County — Oil Discovery:** Schuster & Messenger's Page 1, c sw nw 15-21s-28e, elev 3287 ft, salt 615 ft, brown lime 2315 ft, Delaware lime 2350 ft, sand 2630 ft, pump 20 bbls 44-gr oil, shot 20 qts nitro 2630-30 ft, td 2649 ft.

### OKLAHOMA

**Carter County—West Hewitt:** W. Neustadt's Choate (160) 6, nw se se 18-4s-2w, abnd 2280 ft.

W. Neustadt's Choate (160) 8, c e½ se 18-4s-2w, sand 2235 ft, abnd 2271 ft.

W. Neustadt's Choate (160) 9, c ne se 18-4s-2w, sand 2235 ft, abnd 2267 ft.

W. Neustadt's Choate (160) 11, ne se se 18-4s-2w, sand 2247 ft, abnd 2280 ft.

W. Neustadt's Choate (160) 12, c ne se 18-4s-2w, abnd 2228 ft.

**Comanche County — Fort Sill:** Mid-Continent's Cline 1, se ne ne 17-3n-10w, sand 930-1041 ft, 2,500,000 gas, 1500 ft.

**Creek County—Hickory Grove:** Power Oil Co.'s Harrison 1, c ne nw 11-14n-7e, Bartles 84 ft, abnd 1605 ft.

**Hughes County — S. Spaulding:** Valley Osage's Ranis 1, se se se 20-6n-8e, sand 1282-84 ft, abnd 1605 ft.

**Hughes County—Unnamed:** Grimes' Turner 1, se nw nw 30-8n-11e, abnd 2966 ft.

**Hughes County — Gilcrease:** Shell's Meador A-1, sw se nw 20-9n-9e, Hunton 4017 ft, abnd 4034 ft.

**Logan County—S. Lovell:** Davon's Phelian 1, c se ne 4-17n-4w, Layton 4926 ft, flow 65 bbls, ¼-in, 4965 ft.

**Oklahoma County—NE Edmond:** Harper & Turner's Gregg 1, c se nw 8-14n-2w, Bartles 5893 ft, flow 29 bbls, 5917 ft.

**Okmulgee County—Mounds:** Klingensmith's Powers 1, near c e½ ne 30-16n-12e, Burgess 2147 ft, 5,500,000 gas, 2167 ft.

**Pawnee County—Skedee:** Tabbot's Nipple 1, ne se sw 26-22n-6e, Skinner 2682 ft, shot 70 qts, pump 21 bbls oil, 2 wtr, 2730 ft.

**Pontotoc County—Allen:** W. A. Delaney's White 1, c sw sw ne 16-5n-8e, Viola 4098 ft, abnd 4276 ft.

**Pittsburg County—Unnamed:** Public Service's Lahlman 4, nw ne sw 1-6n-15e, sand 1958-2172 ft, shot 40 qts, 6,800,000 gas, 2189 ft.

**Pottawatomie County — Avoca:** Rudeman's Rich 1, se se ne 1-6n-3n, Viola 4247 ft, 7500 gals acid, pump 7½ bbls, 4307 ft.

**Pottawatomie County — Romulus:** J. F. Smith's Vance 2, nw nw sw 5-7n-4e, Earlsboro 3853 ft, shot 40 qts, flow 80 bbls, 3872 ft.

**Seminole County—Seminole City:** Wood Oil Co.'s Bishop 1, ne ne nw 27-9n-6e, Sylvan 4275 ft, abnd 4278 ft.

**Stephens County — Woolsey:** Schmidt & Doefler's Baker 1, c nw nw sw 36-2s-6w, abnd 1890 ft.

### OKLAHOMA WILDCATS

**Lincoln County — Failure:** Creekmore & Rooney's Jones 1, ne sw sw 1-16n-2e, Inola 4325 ft, abnd 4636 ft.

**Marshall County—Failure:** Texas Co.'s Beard 1, c sw nw nw 30-8s-6e, abnd 2056 ft.

**Pawnee County—Failure:** Phillips' Robe 1, ne ne nw 26-23n-5e, abnd 3103 ft.

**Pontontoc County—Failure:** W. A. Delaney's White 1, 16-5n-8e, Viola 4098 ft, abnd 4276 ft in Viola.

### WEST CENTRAL TEXAS

**Jones County — Akard:** Hedrick Oil Co.'s Akard 3-E, 330 ft wel and 470 ft snl lse, G. Martinez sur, flow 81[illegible] bbls, 2-in, lime 2116-33 ft.

**Jones County—Roark-Noodle:** R. H. Roark et al's Eoff-Humble 1, 495 ft nsl and 525 ft ewl of 150-ac tr, se part T&P 40, blk 18, pump 301 bbls, lime 2728-37 ft.

R. H. Roark et al's Winter-Humble 1, 495 ft out sec 96½-ac lse, s½ T&P 40, blk 18, pump 196 bbls, acid 3000 gals 2723-37 ft.

**Jones County — Wimberly:** Fain-McGaha's Horne 3, 1967 ft snl and 330 ft ewl of G. Martinez sur 137, flow 376 bbls, ⅜-in, Flippen sand 2217-30 ft.

Ernest L. Wilson et al's Mashburn 5, 400 ft snl and 1638 ft wel blk 86, DeWitt CSL, dual completion, flow 1800 bbls, ¾-in, acid 1300 gals, perf 2395-2415 ft, flow 1800 bbls, ¾-in, acid 700 gals, perf 2473-2533 ft, td 2590 ft.

**Shackelford County:** Hickok & Harry Reynolds' Nail 8-C, 660 ft nsl and 500 ft wel n½ ET 133, pump 130 bbls, acid 1000 gals 1572-78 ft.

### WEST CENTRAL TEXAS WILDCAT

**Coleman County—Failure:** Hunter and Sohio Producing Co.'s Griffin 2-A, 550 ft nsl and 4620 ft ewl Hood CSL sur, Morris 3415 ft, Gray 3509 ft, abnd 3962 ft.

### TEXAS PANHANDLE

**Gray County:** Texas Co.'s Davidson 8, 330 ft wel and 1726 ft snl w½ se H&GN 65, blk B-2, pump 121 bbls, shot 280 qts 2907-69 ft.

**Wheeler County:** Skelly's Bell 2, ne sw ne H&GN 81, blk 17, elev 2145 ft, abnd 2191 ft.

### NORTH TEXAS

**Archer County:** R. L. Bennett et al's Veasey 1, 660 ft out nwc s-225 ac, BBB&C 7, 48, abnd 1296 ft.

E. B. Madden et al's Richardson 5-C, 1650 ft ewl and 330 ft nsl BBB&C 11, abnd 1146 ft.

**Baylor County—Seymour:** British-American's Turbeville 17, nw nw nw T&NO 197, flow 402 bbls, 2-in, acid 1000 gals, Palo Pinto 2503-07 ft.

**Clay County—Ross:** Continental et al's Williams 2, 5000 ft nsl and 1508 ft ewl Wm. Walker sur, Bend 5370 ft, flow 6 bbls, 2-in, acid 11,000 gals, 5384-5484 ft.

**Clay County:** Bridwell Oil Co.'s Harrison-Allen 4, 5740 ft from se and 300 ft from sw


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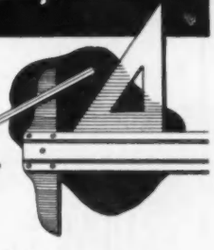

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lines J. Duncan 35, pump 54 bbls, 1136-47 ft.

**Sussex** Oil Corp.'s Hamilton 1-A, 345 ft nsl and 1228 ft ewl blk 84, Byers sur, abnd 1308 ft.

**Texas Co.'s** Boddy 5, 804 ft s and 45 degrees w and 205 ft n and 45 degrees w of e cor HT&B 1, pump 26 bbls, sand 1036-49 ft, td 1051 ft.

**Cooke County:** Benson Bros. and Dennis' Cooke-Texaco 3, 1980 ft nsl and 2650 ft wel of A. Patterson sur, A 817, abnd 1183 ft.

**Cooke County—Wilson:** Burk Royalty Co.'s Orsburn 1, 739 ft ewl and 467 ft snl of B. Sullivan sur, A 581, abnd 2505 ft.

**Jack County—Ellis:** Hanlon-Buchanan's Ellis-Dubose 3-B, 495 ft snl and 1650 ft ewl blk 6, J. W. Williams sur, Bend 4768 ft, flow 456 bbls, 2-in, acid 3000 gals.

**Jack County—Mathis:** Paul Steed et al's Dunlap 2, 467 ft snl and 1650 ft wel BS&F 3, A 81, abnd 3280 ft.

**Montague County—Benson-Dodson:** Phillips' Dodson 2, 2100 ft snl and 950 ft wel ET 11, Bend 5116 ft, flow 638 bbls, ½-in, 5191-97 ft.

**Montague County — Illinois Bend:** Seitz-Comegys & Seitz, Inc.'s Fleming 1, 378 ft ewl and 400 ft snl of W. G. Hill sur, A-380, flow 549 bbls ½-in, Strawn 3533-42 ft.

**Wichita County:** Bell O&G Co.'s Dodson 1-A, 950 ft nsl and 1800 ft ewl of C. Winters sur, A 322, pump 7 bbls, 1400-12 ft.

Cochran & Cain's Waggoner 4-A, HT&B 14, A 505, pump 9 bbls, sand 1848-72 ft.

Paradise Oil Co.'s Waggoner Est. 3-E, 1160 ft snl and 650 ft ewl GC&SF 1, A 767, pump 15 bbls, 1966-82 ft.

Texas Co.'s Waggoner 439-A, 300 ft from well No. 273 and 1264 ft ewl T.C.Ry. sec 2, pump 9 bbls, sand 543-547 ft.

**Young County:** Belfort Oil Co.'s Dozier 1, 1350 ft from ne and 1800 ft from se lines I. L. Hill sur, A 126, flow 61 bbls, 2-in, shot 30 qts 3794-3806 ft.

States Oil Corp.'s Akers 3, 330 ft n and w of nec SP 1, but in M. E. Criswell sur, A 1772, pump 75 bbls, acid 3000 gals Bend 3385-3404 ft.

### NORTH TEXAS GAS INPUT WELL

**Archer County:** C. T. Hedges et al's Brom 14, 750 ft out nec TE&L 1582, td 1422 ft.

### NORTH TEXAS WILDCATS

**Archer County—Failure:** Hedrick Oil Co.'s McCleur 1, 2320 ft snl and 1650 ft wel TE&L 2468, abnd 1557 ft.

**Clay County—Oil Discovery:** J. S. Youngblood-R. L. Foree's Sanzenbacher-Gulf 1, c of nw-40 ac blk 11, Orange CSL sur, A 368, Bend 5756 ft, Miss 5995 ft, Simpson 6154 ft, Ellenburger 6195 ft, flow 7 bbls, 2-in, acid, perf 5995-6120 ft, td 6308 ft.

**Jack County—Failure:** Standard of Texas-Hanlon-Buchanan's Sutherland-Antelope Oil Co. 1, 660 ft out swc n½ Chas. A. Lee-S. P. Ry. sur, A 1476, Home Creek 894 ft, Ranger lime 1070 ft, Adams 1292-1358 ft, Bend 4926 ft, abnd 5444 ft.

**Wilbarger County—Failure:** Whitaker Oil Co.-S. D. Johnson's Berry 1, 330 ft out nec s-80 of w-160 of n½ H&TC 9, blk 12, abnd 4525 ft.

You may have surplus equipment that is urgently needed by some other operator. See the

**TRADING POST SECTION**

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### TEXAS GULF COAST

**Chambers County—Anahuac:** Humble's Young 1, 280-ac lse H&TC sur, A 137, abnd 7450 ft.

**Harris County—Friendswood:** Humble's Cox 2, 45-ac tr se side field, Thomas Choate sur, 5½-in 6070 ft, flow 473 bbls, ½-in, td 6082 ft.

**Jefferson County—Stowell:** Texas Co.'s Koch-Jenkins 1, 40-ac unit L. Lopez Lge, dual completion, 5½-in 7840 ft, perf 7820-30 ft, flow 454 bbls 12/64-in, perf 7514-24 ft, flow 346 bbls, 12/64-in, td 7840 ft.

**Matagorda County—North Markham:** Sun's Braman 6, 2903-ac lse, H. Hosea Lge, 5½-in 8100 ft, perf 7709-26 ft, flow 149 bbls, ⅛-in, td 8100 ft.

**Wharton County—Boling:** Sinclair-Prairie's Taylor 1, 200-ac tr, Lavelock & Glasscock subdvn, S. F. Austin ⅛ Lge, abnd 3514 ft.

### TEXAS GULF COAST NEW PAY

**Harris County—Humble:** Texas Co.'s Stevenson 53, e flank 517-ac tr, 1985 ft fr nl, 900 ft el lse, J. B. Stevenson sur, 7-in 5831 ft, perf 5811-19 ft, flow 416 bbls, ¼-in, td 5832 ft. Opens new sand.

### TEXAS GULF COAST WILDCATS

**Chambers County—Failure:** Butcher-Arthur's Sherman 1, 113-ac tr, J. McFaddin sur, abnd 6212 ft.

**Matagorda County—Failure:** Ohio's Pierce 1, Tilley prospect, 221-ac tr, Josiah Tilley Lge, abnd 9917 ft.

**Montgomery County—Failure:** Humble's Texas Long Leaf 1-B, Splendora area, 3000-ac tr, Walker County School Land sur, abnd 11,023 ft.

### EAST TEXAS

**Wood County—Hawkins:** Texas Co.-F. G. Lake's Greer-Cobb 1, 330 ft snl and 475 ft wel A. N. McKnight sur, elev 331 ft, Woodbine 4606 ft, flow 413 bbls 24-gr, ¼-in, perf 4730-49 ft, td 4810 ft.

**Wood County—Manziel:** Shell-Navarro Oil Co.'s Lee-White 1, 530 ft wel and 3095 ft nsl Sam Burch sur, elev 419 ft, Georgetown 5240 ft, Goodland 6231 ft, Paluxy 6308 ft, 1st water 6345 ft, abnd 6700 ft in Glen Rose.

Shell's Sheppard 1, 555 ft ewl and 785 ft snl 66.2-ac lse, John Polk sur, elev 453 ft, Georgetown 5150 ft, Goodland-Paluxy contact faulted out, Paluxy pay 6373 ft, water 6390 ft, Glen Rose 6610 ft, pump 208 bbls 25-gr oil, 40 bbls water, perf 6375-88 ft, td 6665 ft.

**Wood County—Quitman:** Shell's McIntosh-Goldsmith 1, 1620 ft wel and 2600 ft nsl E. Goodsir sur, Paluxy 6210 ft, flow 417 bbls, ¼-in, perf 6252-78 and 6305-32 ft, td 6471 ft.

### EAST TEXAS WILDCATS

**Angelina County—Failure:** Julian R. Meeker's Massingill 1, 2000 ft from se and 5650 ft from sw lines Santiago Erie sur, elev 298 ft, abnd 4824 ft.

**Hunt County—Failure:** Stanolind's I. W. Bickley 1, 1200 ft wel and 2300 ft nsl of E. F. Anderson sur, sw edge Commerce, elev 498 ft, Austin chalk 2220-3060 ft, Woodbine 3560 ft, Georgetown 4380 ft, Glen Rose 5180 ft, 1st anhydrite 5450 ft, cut 2nd fault 5580 ft, abnd 5997 ft.

### LOWER TEXAS COAST

**DeWitt County — Slick-Wilcox:** Superior's Riedel 1, 330 ft fr ne & sel 94-ac lse, Marcus Sewell sur, 5½-in 7623 ft, perf 7607-20 ft, flow 264 bbls, 10/64-in, td 7623 ft.

**Jackson County — North LaWard:** Cities Service's Graves 4, 990 ft fr n & el's blk 17, Pickering Rch subdvn, Patrick Scott sur, 5½-in 5292 ft, perf 5202-26 ft, flow 80 bbls, 3/16-in, td 5292 ft.

Hewit & Dougherty's Hawes 2, 626 ft fr nl & 568 fr el lot 24, Pickering Rch subdvn, Jessie White sur, 5½-in 5265 ft, perf 5218-26 ft, flow 66 bbls, 7/64-in, td 5265 ft.

Stewart's Brandes 2, 330 ft fr sl & 1301 ft fr wl 130-ac lse, Pickering Rch subdvn, Jessie White sur, 5½-in 5234 ft, perf 5224-34 ft, 182 bbls ⅛-in, td 5234 ft.

Sun's Hackbarth 3, 4345 ft fr el, 330 ft fr nl Patrick Scott sur, 5½-in 5219 ft, perf 5212-16 ft, flow 76 bbls, 7/64-in, td 5219 ft.

**Jackson County—West Ganadp:** Pure's Halamicek 2, 650 ft s fr nl of William Menefee sur, 5½-in 4770 ft, perf 4746-69 ft, flow 80 bbls, ⅛-in, td 4770 ft.

**Jim Wells County—LaGloria:** Texas Co.'s Moss 1, 660 ft fr s&wl e½ sec 7, R. P. Haldeman subdvn Seeligson Rch, Los Olmos y Loma Blanca gr, dual completion, 7-in 6666 ft, perf 5904-34 ft, flow 35,000,000 gas, open; perf 6214-34 ft, flow 60,000,000 gas, open, spray dist, td 7210 ft.

**Jim Wells County — Seeligson:** Transwestern's Seeligson 6-B, 727 ft fr el, 1626 ft fr nl 1318-ac lse, Seeligson Rch Hoopman sur, 5½-in 6208 ft, perf 5948-54 ft, flow 119 bbls, 3/32-in, td 6251 ft.

Humble's King Ranch-Cabeza 19, 1980 ft fr wl, 2478 ft fr sl GH&H 47, 5½-in 6151 ft, perf 5952-59 ft, flow 66 bbls, ⅛-in, td 6411 ft.

**Neuces County—Baldwin:** Magnolia's Baldwin 9, 3850 ft fr w'ly wl & 2040 ft fr sl & 1569 ft fr s'ly nl 805-ac tr, J. S. McGregor sur 39, 5½-in 4105 ft, perf 3880-84 ft, flow 407 bbls on jet, td 4105 ft.

### LOWER TEXAS COAST WILDCATS

**Bee County—Failure:** W. Earl Rowe's Moore 1, ctr 40-ac lse, Samuel Allen sur, abnd 4381 ft.

**Kleberg County—Failure:** King-Tex's Gulf 1, se¼ sec 40, Kleberg Township subdvn, G. Trevino gr, abnd 3-62 ft.

### SOUTHWEST TEXAS

**Duval County — North Government Wells:** Magnolia's Duval County Rch 51, 660 ft fr n&el's J. Poitevent sur 208, n flank, abnd 2571 ft.

**Duval County—Sejita:** Navarro's Morgan 2, 520 ft fr nl, 990 ft fr wl blk 6, sec 28, San Pedro de Charco Redondo gr, 5½-in 5837 ft, perf 5786-91 ft, flow 140 bbls, ⅛-in, td 5840 ft.

Standard of Texas' Casey 3, 467 ft fr s&wl's lot 3, blk 27, San Pedro de Charco Redondo gr, 5½-in 5799 ft, flow 52 bbls, 3/32-in, td 5823 ft.

**Jim Hogg County—Yeager:** Humble's Hellen 1, 660 ft fr wl, 1980 ft fr sl 700-ac lse, S. Yonojosa gr, 5½-in 3770 ft, pump 18 bbls, td 3787 ft.

### SOUTHWEST TEXAS WILDCAT

**Zapata County—Gas Discovery:** Texas Co.'s Hartman 2, 1650 ft fr nw&swl's Samuel Hamilton sur 292, 5½-in 2296 ft, perf 1941-46 ft, flow 870,000,000 gas, open, tp 600, cp 670, td 2310 ft. Opens field.

### WEST TEXAS

**Andrews County—Embay-Ellenburger:** Phillips' University-Andrews 45, c se se sec 19, blk 10, granite 8004 ft, flow 835 bbls, ¼-in, acid 500 gals perf in Ellenberger 7975-90 ft, td 8015 ft.

**Cochran County — Slaughter:** Continental's Dean 16, 4554 ft nsl and 7366 ft ewl leag 58, Martin CSL, flow 718 bbls, 3-in, acid 12,000 gals 4930-78 ft.

Honolulu's Dean 1-B, 440 ft out nec lab 12, leag 89, Lipscomb CSL, flow 254 bbls, 2-in, acid 10,500 gals 5055-84 ft.

Sunray Oil Co.'s Union Supply Co. 1, 660 ft out nwc lab 10, leag 59, Martin CSL, flow 268 bbls, cas, acid 9500 gals 4925-45 ft.

Texas Co.'s Mallet 11-F, 580 ft wel and 530 ft snl lab 16, leag 51, Scurry CSL, flow 667 bbls, cas, acid 10,000 gals 4985-5040 ft.

**Ector County—North Cowden:** Stanolind's Holt 1-H, 1982 ft snl and 675 ft wel T&P 18, blk 43, T-1-N, flow 656 bbls, 2-in, shot 490 qts 4565-4765 ft.

**Gaines County — Wasson:** C. U. Bay Pet. Corp.'s Wasson-Humble 3, nw PSL 53, blk AX, flow 165 bbls oil, 10 water, 2-in, acid 2000 gals 4930-90 ft.

**Hockley County—Slaughter:** Honolulu's Mallet 28-A, 510 ft out nec lab 8, leag 52, Scurry CSL, first dry hole within field, abnd 5068 ft.

Paul C. Morrow et al's Hefner 3, 1472 ft nsl and 671 ft ewl lab 3, leag 42, Rains CSL, flow 872 bbls, cas, acid 10,000 gals 4850-96 ft.

T. F. Morrow et al's Mallet 40, 580 ft out nwc lab 10, leag 48, Edwards CSL, flow 425 bbls, 2-in, acid 10,000 gals 4862-4906 ft.

T. F. Morrow et al's Mallet 43, 580 ft out nec lab 9, leag 48, Edwards CSL, flow 298 bbls, cas, acid 10,000 gals 4878-4944 ft.

T. F. Morrow et al's Mallet 44, 580 ft out nwc lab 9, leag 48, Edwards CSL, flow 596 bbls, cas, acid 12,000 gals 4913-54 ft.

T. F. Morrow et al's Mallet 54, 580 ft out swc lab 2, leag 48, Edwards CSL, flow 433 bbls, cas, acid 12,000 gals 4877-4925 ft.

Permian Oil Corp.'s Mallet 23-B, 510 ft out sec lab 16, leag 49, Scurry CSL, flow 1231 bbls, cas, acid 10,000 gals 4995-5045 ft.

**Howard County—Snyder:** Fleming Oil Co.

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This handbook was compiled and published for the purpose of saving the time of operators, engineers, superintendents, foremen and others.

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et al's Snyder 2-E, 1980 ft snl and 510 ft wel T&P 21, blk 30, T-1-S, pump 100 bbls, shot 900 qts 2700-2920 ft.

**Mitchell County—Westbrook:** Col-Tex Ref. Co.'s Abrams-T. P. Land Trust 1, ne nw sw T&P 33, blk 28, T-1-N, pump 57 bbls, shot 660 qts 2900-3158 ft.

**Pecos County—Abell:** Geo. T. Abell et al's Heagy 2, 330 ft from ne and 1666 ft from se lines H&TC 9, blk 3, abnd 5485 ft.

**Pecos County—Apcos:** Superior Oil Corp.-Bryce McCandless' Crockett-State 2, 467 ft from sw and 467 ft ewl of e 40 ac tr 2-B, Pink Phelps Vacancy, Ellen 4255 ft, granite 4645 ft, 1,000,000 gas, acid 7500 gals perf 4565-4630 ft, td 4648 ft.

**Pecos County—Toborg:** Stanolind's Toborg 10, 762 ft nsl and 150 ft wel sec 539, Arnold-Bennett sur, pump 59 bbls, shot 54 qts 368-395 ft.

**Ward County—Spencer:** Stanolind's Byrd 4-A, 1986 ft from ne and 660 ft from nw lines H&TC 34, blk 34, flow 59 bbls, 3/16-in, shot 100 qts 2608-40 ft, td 2650 ft.

**Winkler County—Weiner:** J. R. Sharp et al's Halley-Sun 4, nw se se PSL 7, blk B-11, flow 69, 660 ft snl and 1999 ft wel PSL 8, blk 107 bbls, 3/16-in, shot 220 qts 3032-85 ft, td A 35, otd 4534 ft, 506 bbls, gas lift, acid 5000 gals 4500-4545 ft.

### WEST TEXAS WELL DEEPENED

**Andrews County—Means:** Humble's Means 3090 ft.

# United States Wildcat Starts

### ARKANSAS

**Union County:** J. R. Lockhart's National Bank 1, se nw 12-17s-15w, lcn.

### CALIFORNIA

**Contra Costa County:** Standard's Oursan Comm. 1 Rancho El Sobranto, Pinole area, gas test, lcn.

**Fresno County:** General Petroleum Corp.'s Burrell 68-35, se sw se 35-16-18, Huron area, rig.

**Kern County:** Kohlbush & Lyons U.S. 1, sw sw sw 6-29-22, Belridge, South area, rig.

Western Gulf's 1, se nw se 4-25-27, Jasmine area, lcn.

Tide Water Associated's Schnaidt 86-7, se ne se 7-28-25, Shafter area, lcn.

**Kings County:** Seaboard's Phillips 66-2, se ne se 2-19-22, Hanford area, lcn.

**Glenn County:** Richfield's Afton Comm. 1, e nw 2-18-1, Chico area, grading.

### ILLINOIS

**Clay County:** Robinson & Puckett's Gibson Estate 1, ne se 3-4n-7e, lcn.

**Cumberland County:** Sohio Prod Co.'s Fred Wylde 1, se se nw 15-9n-9e, lcn.

Dexter & Gilcrest's Huisenga 1, ne se 30-9n-9e, lcn.

**Jefferson County:** Gulf's Sloat 1, nw nw ne 31-1s-2e, lcn.

**Macoupin County:** W. L. Topf's Beasley & Way 1, 2-12n-6w, dr.

**Montgomery County:** Central Pipe Line Co.'s Frank Gees 1, nw ne sw 35-11n-5w, dr.

**Williamson County:** Geo. Allison's Huck 1, ne ne se 8-8s-3e, lcn.

### KANSAS

**Barber County:** Deep Rock's Skinner B 1, e w½ nw se 29-31s-14w, lcn.

**Dickinson County:** Nat'l. Assoc. Pet.'s Federal Land Bank 1, nec sw 36-16s-4e, dr 820 ft.

**Graham County:** J. J. Lynn's Webster 1, nwc ne 34-10s-22w, dk.

**Greenwood County:** K. T. Weideman's Edgar B 1, nw sw ne 2-28s-8e, mim.

**Leavenworth County:** Chas. Miller's Stillings 1, sec nw 35-9s-21e, lcn.

Roxan Oil Co.'s Reiger Est 1, c e½ nw ne 29-11s-22e, mch.

**Logan County:** Texas Co.'s Smith 1, nec sw 30-11s-36w, lcn.

**McPherson County:** John Allison et al's Fee 1, nwc ne 20-18s-3w, lcn.

**Pratt County:** Pryor & Lockhart and Aladdin's Barnes Est 1, nec 25-27s-14w, rur.

**Russell County:** Duwe & Farris' Bratton 1, nwc 33-11s-13w, lcn.

Phil-Han et al's Beatty 1, se sw sw 9-12s-13w, rig.

**Sedgwick County:** Beech Aircraft Corp's Airport 1, sec nw 21-27s-2e, dr 650 ft.

**Stafford County:** W. P. Faulkner's Welch 1, nwc sw 18-21s-12w, lcn.

### SOUTH LOUISIANA

**Iberville Parish:** Sugarfield Oil Co.'s Iberville Mortgage & Loan 1, Rosedale prospect, 800 ft fr nwl, 1600 ft fr nel sec 74-7s-10e. (Deepening job on Humble well abnd at 10,025 ft in Oct. 1939), lcn.

**St. Mary Parish:** Texas Co.'s State-Cote Blanche 5, Cote Blanche Island area, 8010 ft e USCGS Mon. "Bluff" in Bay, T-15s-8e, lcn 11,500-ft test.

**Terrebonne Parish:** Arkansas Fuel's La-Terre 1, Creole Bayou area, c sw se 1-19s-13e, lcn.

### NORTH LOUISIANA

**Bossier Parish:** W. K. Rowe et al's Antrim 1, se se 22-22n-13w, lcn Woodbine sand test.

**Tensas Parish:** Chicago Mill & Lumber Co.'s Mutual 1, se 12-11n-9e, lcn Tuscaloosa sand test.

Youngblood-Foree's Ayer 1, se se 21-14n-10e, lcn Tuscaloosa test.

### MICHIGAN

**Allegan County:** Fortney and Cooks' Bolks 1, se ne se 25-4n-15w, dr.

**Missaukee County:** Freeman Oil Co.'s Allen 1, e½ se se 19-23n-6w, dr.

**Osceola County:** Gordon Oil Co.'s Larson 1, s½ se nw 14-20n-10w, lcn.

Gordon Oil Co.'s Wood 1, s½ sw se 21-20n-9w, rig.

**Saginaw County:** C. W. Teater's Byrne 1, s½ nw ne 11-9n-4e, dr.

**Ottawa County:** S. L. McCall's Timmerman 1, nw ne ne 26-7n-15w, rig.

### NEW MEXICO

**Eddy County:** Standard of Texas' Ed C. Smith 1-23, sw ne nw 23-22-s-24e, machine.

Standard of Texas' H. H. Wilson 1-3, c sw se 3-22s-25e, sp.

Trumter Pet Corp.'s Boulter 1, nw sw ne 28-19s-27e, lcn 900-ft test.

### OKLAHOMA

**Garvin County:** Kubat's Pruitt 1, c nw nw 33-4n-1e, rur.

**Hughes County:** J. E. Hall's Griswald 1, se nw se 5-9n-12e.

**Logan County:** Paul McIntyre et al's Morris 1, 13-19n-2w, 2nd Wilcox 5451 ft, dr 5460 ft.

**Noble County:** Northern Ordnance's McCoy 1, 24-23n-2w, dr 3140 ft.

**Okfuskee County:** Peppers Refining Co.'s Price 1-A, ne sw se 16-10n-9e, rur.

**Okmulgee County:** National Pet Co.'s Lewis 5, se sw sw nw 33-16n-11e, lcn Wilcox test.

**Pawnee County:** Deck & Flynn's School 1, nw ne ne 16-21n-6e, Avant 1570 ft, Prue 2610 ft, dr 2704 ft.

**Payne County:** Ingling & Parker's Mary Bryant 1, sw sw se 6-18n-5e, lcn.

**Pottawatomie County:** Watchorn Oil & Gas Co.'s Sorrell 1, nw nw se 20-6n-3e, rig.

**Seminole County:** Paul McIntyre's Okey 1, se ne nw 22-9n-8e, rur.

### TEXAS GULF COAST

**Burleson County:** Charles E. Fraser's Marek 1, 379-ac tr, James Buchanan sur, 6 mi sw Lyons, lcn 5300-ft test.

**Colorado County:** Cities Service's Lehrer 1, 1475-ac lse, Naham Mixon sur, 6 mi w Garwood townsite, lcn 10,500-ft test.

**Brazos County:** J. Elmer Thomas' Milo Heirs 1, 600-ac tr, A. Millican sur, lcn 4800-ft test.

**Jasper County:** Sun's Richardson 1, Antioch prospect, 100-ac tr, John R. Saulsbury sur, 5 mi sw Buna, lcn 8250-ft test.

**Jefferson County:** Glenn H. McCarthy's Texas Public Service 1, 1000-ac tr, William McFarland sur, 6 mi se Nome, lcn 9000-ft test.

### LOWER TEXAS COAST

**Brooks County:** Southern Minerals' Frank 1, ctr lot 1, blk 11, Los Olmos y Loma Blanca Gr, lcn 7000-ft test.

**Colorado County:** Cities Service's Lehrer 1, 2100 ft fr nl, 2840 ft fr el Naham Nixon sur, A 402, lcn 10,500-ft test.

**Jackson County:** W. L. Pickens' Kramer 1, 467 ft fr s&el of e 60-ac of 75-ac lse, lot 10 Meyer, Foster & Knipling subdvn, Morris & Cummings sur 34, drilling.

Seaport Oil Co.'s Bennett 1, 467 ft fr ne&nwl 79-ac tr, blk 30, 696-ac tr, J. M. Bennett Rch, Ramon Musquez Gr, 1 mi nw West Ranch field, lcn 6000-ft test.

**Jim Wells County:** Highland Oil Co.'s Winters 1, 467 ft fr n&el 40-ac tr out of e 160-ac of 320 ac of share 5, lcn.

**Karnes County:** Adams Oil & Gas Co.'s Hunt 1, 495 ft fr se&swl 75-ac lse in ne½ 150-ac tr, A. M. Thompkins sur, lcn 9000-ft test.

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# Men in the Industry's News

**TOM L. TURNER,** formerly with J. G. White Engineering Corporation as assistant purchasing agent, has joined the editorial staff of THE OIL WEEKLY. Previous to joining White he was with the old International Supply Company when it was purchased by the Bethlehem Supply Company. While with Bethlehem he was located in West, West Central, North and Southwest Texas as manager of local

**EARL COCKRUN** has joined the staff of The Carter Oil Company's eastern division office at Mattoon, Illinois, coming from the Illinois State Geological Survey at Urbana.

**JAMES FITZ-GERALD, JR.,** head of the land and geological departments of Skelly Oil Company's West Texas-New Mexico district office at Midland has terminated 17 years of service to operate as an independent. H. Winston Hull has been transferred from Tulsa headquarters to be manager of the Midland division, while Dr. W. F. Bailey and H. H. Kalderli will be division geologist and land man, respectively.

**PAUL L. APPLIN,** geologist for Danciger Oil & Refineries, Inc., Fort Worth, has resigned to accept appointment as geologist with the United States Geological Survey with headquarters at Shreveport.

**TOM W. KOCH,** Permian Basin district geologist for Standard Oil Company of Texas, has been elected president of the Midland Geological Society. Other officers are: Charles F. Henderson, Stanolind Oil & Gas Company, vice president; Robert E. LeBlond, Tide Water Associated Oil Company, secretary-treasurer; and Dr. W. Harris, Phillips Petroleum Company, program committee chairman.

**GEORGE R. GIBSON,** geologist with Magnolia Petroleum Company in West Texas, has resigned to operate as a consulting geologist in association with Carey P. Butcher, former Permian Basin district geologist for Tide Water Associated Oil Company. They will maintain headquarters at Midland.

**DR. J. B. REESIDE, JR.,** of the United States Geological Survey, discussed "The Upper Cretaceous of the Western Interior of the United States" before a special meeting of the Houston Geological Society, September 20.

**GEORGE M. GILLEN,** who has been in charge of advertising, has been appointed assistant manager of combined sales of Lukens Steel Company and subsidiaries, By-Product Steel Corporation and Lukenweld, Inc. Gillen was born in New York in 1903, he attended public and high school there, and New York University. Prior to joining Lukens Steel Company he was with G. M. Basford Company, New York.

**GROVER LUCKER,** former Fort Worth division engineer for The National Supply Company and more recently the supervising engineer in charge of the construction of the Defense Plant Corporation's products pipe line across Florida, has joined The Texas Company, Foreign Production Department, with headquarters at New York.

**F. P. DIENER** has been appointed Chemical Engineer of the Universal Atlas Cement Company. Diener has been actively engaged since 1924 in chemical, analytical and engineering work; he was particularly concerned with the starting of operations at the plant of the company at Waco, Texas. Other appointments announced by the company includes that of G. L. Lindsay as assistant director of tests and research; and C. L. Davis as engineer of tests.

**LAWRENCE B. JACKSON** has been appointed director of engineering of the diesel division of American Locomotive Company, effective October 1, 1943.

**GLEN HORTON,** formerly with Cities Service Oil Company, now is assistant purchasing agent for Bovaird Supply Company, Tulsa.

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*Indicates detailed information on products and services included in 1942 edition of Composite Catalog of Oil Field and Pipe-Line Equipment.


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